

“MiGs”, “Seagulls” and “SB” were made in one city (Moscow) of one country; served technicians of quite equal qualifications - and at the same time such a different percentage of technical failures?

The strangest thing is the ratio of losses of missing aircraft and pilots. In July, 40 aircraft were classified as "did not return from a combat mission". Thus, in total for June - July, 182 aircraft did not return from the mission for an unknown reason. But the pilots who "did not return from a combat mission" for the same period (40 days of June-July) turned out to be only 97 people. How can this be? In the fever and turmoil of the first days of the war, a bomber could take to the air without a navigator, without a gunner - but not without a pilot! Or the pilot returned from a mission, but could not remember where his plane had gone? Yes, there could have been such things in the war (severe injury, shell shock, memory loss), but not in the same quantities ...

Chapter

26 HOW IT WAS - 3

The most dramatic events took place, as is known, in the Western OVO.

Recall once again the composition of the Soviet aviation group. In the first echelon, in the strip 50-100 km from the border, the 11th SAD (Grodno-Lida), the 9th SAD (Bialystok), the 10th SAD (Brest-Kobrin) were deployed. In the deep rear of the district, approximately on the Vitebsk-Bobruisk meridian, the 12th BAD, 43rd IAD, 13th BAD were deployed (from north to south). Under the operational control of the district was the 3rd DBAK, whose two bomber divisions (52nd and 42nd) were even further east, in the Smolensk region.

The logic of such a construction is obvious. In the first echelon, as part of the 11th, 9th, 10th SAD, the main forces of the fighter aviation of the district were concentrated (8 fighter regiments, including all units armed with MiGs and Yaks). This grouping covered the territory of the district from the passage of enemy aircraft, and also ensured the actions of its own strike aircraft against objects in the adjacent territory to the maximum possible (limited by the radius of action of fighter aircraft) depth. On the contrary, the main forces of bomber aviation were pulled back 400-450 km from the border, which, more reliably than any air defense, protected them from a sudden air strike and made it absolutely impossible to attack enemy ground forces on airfields. The 43rd IAD (4 fighter regiments) was an operational reserve of the front command, and also provided air cover for the most important industrial facilities and transport hubs in eastern Belarus. The enemy concentrated in the offensive zone of the Army Group "Center" the largest

and best armed aviation grouping: the 2nd Air Force of the Luftwaffe (8th and 2nd air corps), which included 8 groups of "horizontal" bombers, 7 groups of dive bombers "Ju-87", 10 groups of fighters and 4 groups of multipurpose twin-engine "Me-110". In terms of the number of strike aircraft, the 2nd Air Fleet outnumbered the other two (1st and 4th), taken together; the actual superiority

was even higher given the presence in service of a large group of dive bombers and attack aircraft (which include the Me-110).

The offensive zone of Army Group Center (i.e., the Western OVO and the southern flank of the Baltic OVO) was the only theater of operations in the air

over which Soviet aviation had a very modest numerical superiority: in terms of fighter pilots, 1.42 to 1; for bomber crews - 1.14 to 1. In the previous chapters, we have already considered how ineffective the Soviet Air Force acted even in those areas where they had multiple numerical superiority; one should not be surprised that in a situation of approximate equality of forces, armed confrontation led to the rapid defeat of the air forces of the Western Front. Next, we will try to recreate the real picture of those tragic events.

9th GARDEN

In a vast forest area southwest of Bialystok, the 9th SAD was based - one of the best (according to the results of pre-war inspections), the largest (five air regiments, more than 420 combat aircraft), which received the largest number of the latest MiGs (237 units) division of the Soviet Air Force. The command of such a division was entrusted to the Hero of the Soviet Union, a veteran of the war in Spain, Major General S.A. Chernykh. The four fighter regiments of the division were almost completely equipped with MiGs, but at the same time, the fighters of the "old types" ("I-16" and "I-153") had not yet been removed from the units, so 366 aircraft turned out to be in the 9th SAD - fighters. At the same time, new MiGs continued to arrive in Bialystok. As of June 1, there were 237 of them, (23) but the report of the Commander of the Air Force of the Front gives the figure 262. (10) Already by June 1, 1941, 225 pilots of this division were considered prepared for the combat use of MiGs; taking into account the huge number of speculations on this subject, we will also give the exact archival details (TsAMO, f.35, op. 107559, d. the compilers of the collection "Air Forces of the Great Patriotic War in numbers" refer. (23)

The bomber regiment of the division (13th BAP) was one of the first in the Soviet Air Force to begin re-equipping with dive bombers - first the Ar-2, and then the Pe-2 (of which there were 8 units in the regiment by the beginning of the war). Such a division was deployed at the very tip of the "Bialystok ledge", which was actually "surrounded" by German troops stationed on the territory of occupied Poland on both sides; a suicidal decision (if it was planned to repel an enemy attack) and quite typical - if we finally admit the obvious facts ...

At the disposal of the command of the 9th SAD were 4 main (Bialystok, Belsk, Zabłudov, Ros) and 21 operational (field) airfields. These figures have been known at least since 1971, after the monograph by A.G.

Fedorov. (41) The myth that the airfields of the 9th SAD were almost next to the border pillars, that they were subjected to artillery and even mortar fire, and "by noon German tanks crawled onto the airfield" (58) **was** invented retroactively and with a very specific goal - to find at least some "good reason" for the defeat that occurred in the first two days of the war. The base airfields of the division were located at a

distance of 40 km (Belsk) to 170 km (Ros) from the border. Of the number of operational airfields, only 4 (out of 21) are mentioned in all sources known to the author, namely: Seburchin (50 km), Vysokie Mazowieck (45 km), Dolubovo (22 km) and Tarnovo (12 km). Thus, among the 25 airfields, one is found that, at least theoretically, could be subjected to shelling on the first day of the war. As for the "German tanks", the routes of movement of units of Guderian's 2nd Panzer Group have long been known for certain - the nearest tanks "crawled" 100-150 km south of the 9th SAD base area.

It is almost impossible to restore the real picture of events from the documents: the 9th SAD simply disappeared. In the Central Archive of the Moscow Region, the archives of the 9th SAD have been declassified and are now available to everyone. This is a yellowed cardboard folder with many blue seals and stamps on the cover. Inside the folder is a piece of paper the size of a box of Kazbek cigarettes. The leaflet says that on 06/25/41 the division was disbanded, and the staff documents were not preserved. Memoir literature will not help us much either. There was no one to write memoirs. The commander of the Air Force of the Western Front, Major General I. Kopets, died on June 22 under circumstances unknown to this day. Major General A. Tayursky, who temporarily performed his duties, was arrested on July 8, 1941 and shot. The commander of the 9th SAD was arrested on July 8, shot on October 16, 1941. He was rehabilitated posthumously in August 1958.

Fragments of various testimonies, documents, journal articles and books, conscientiously collected 15 years ago in work (58), suggest that two regiments of the 9th SAD (124th IAP and 126th IAP) carried out in the early morning of June 22 (from 4 until 9 a.m.) several air battles, during which 8 enemy aircraft were shot down and 3-4 of our own were lost. Losses, as we see, are minimal (less than 2.5% of the original number). It is difficult to judge the reliability of the victories, nevertheless, among the 47 aircraft of the 2nd Air Force of the Luftwaffe shot down and damaged on June 22, there could well have been shot down by these regiments. There are no mentions of military operations, victories and losses in the air of the 41st IAP (63 pilots, 56 MiG-3s and 22 I-16s) in the popular literature.

The reports of the military counterintelligence agencies published in 2008 by M. Meltyukhov turned out to be somewhat more informative. (151) So, in a special message of the 3rd Directorate of the NPO No. 37928 dated July 15, 1941 we read:

An investigation into the reasons for the destruction of all materiel by fascist aviation in the 41st and 124th IAPs of the 9th mixed air division established: The commander of the 41st aviation

regiment, Major Ershov, at the time of the enemy aircraft raid on the morning of June 22, was confused and could not organize the personnel of the regiment to fight back adversary. Despite the fact that during the first raid of fascist aircraft on the Siburchin airfield, where the 41st IAP was stationed, **the enemy did not disable a single combat aircraft, since all of them were dispersed and camouflaged (*hereinafter, it is emphasized by me.* - M.S.)**, Ershov did not take independent actions to deliver a decisive blow [on] enemy aircraft, waiting for instructions from the command of the 9th AD. Major Ershov, having a combat regiment at his disposal, instead of deciding to act in

formations, sent 1-2 aircraft towards the enemy, which were destroyed by the enemy. Thus, the best pilots of the regiment were killed: Solokha, Aksenov, Chernyavsky - and Krutoverets, Korobkov, Kukushkin and Kiselev were shot down.

Ershov, **having no need to relocate** from the Siburchin airfield, since this airfield had everything for combat, decided to transfer the regiment to the Kuryany airfield, and then on the evening of June 22 he moved to the Kvartera airfield. Subsequently, all the materiel was destroyed due to the fact that the aircraft at these airfields did not have air to refuel the aircraft (*i.e., compressed air to start the engine on the MiG-3*) and cartridges for the VS machine gun, proving to be incapacitated ...

Here, for the first (but by no means the last!) time, we meet with a clearly recorded "fighter redeployment" - when, after several flights from one airfield to another, the planes finally end up where they have nothing to refuel, start, arm, no one to serve, etc. With all this, it should be noted that on the morning of June 22, the aircraft in Major Ershov's regiment were "dispersed and camouflaged", the regiment did not suffer a single loss from the enemy's first strike on the airfield;

losses in the air - for all the tragedy of the death of pilots - were relatively small (7 out of a total of 78 aircraft were disabled). In the report of the "specialists"

there is no clear answer to the main question - who made the decision on the suicidal relocation of the regiment? A confused commander who was waiting for instructions from above, or is it the command of the 9th SAD? Finally, the lack of cartridges for the large-caliber "BS" (one such machine gun was on the "MiGs" and on the "I-16" type 29) did not make these aircraft completely unarmed (each had two more 7.62-mm "ShKAS") and even more so - did not prevent take-off and further relocation to a fully equipped airfield; it was possible to start the engines with a standard autostarter, which was supposed to be at a large airfield in Quatera ... Let's continue, however, reading the document:

... The commander of the 124th IAP, Major Polunin, was on vacation at the time of hostilities and arrived at the regiment only on the afternoon of June 22, when the enemy had already made two raids on the airfield. After the third raid by enemy aircraft, Polunin **flew away on a UTI-4 aircraft without giving**

any instructions. The assistant commander of the 124th IAP, Captain Krugloye, remained with the regiment commander during his vacation, on June 22 in the morning, during a raid by fascist aviation, he was confused and did not take decisive measures to combat it. All Kruglov's orders were unorganized. Aircraft were launched into the air not by units, but by singles, which did not give the desired effect in repelling enemy aircraft. Most of the MiG-3 fighters **did not fire machine guns**, since the team of plant No. 1 **did not have time to adjust them.** All this led to the fact that all aircraft of the regiment were destroyed.

Here comments are already superfluous. It remains only to add that it was the 124th IAP that received the largest - not among the regiments of the 9th SAD, but in all the Red Army Air Forces - the number of "migs" (70 units), on which they "did not have time to adjust" weapons in a few months. And this is 50 km from the border with a potential enemy ...

The most detailed crumbs of information are found in the description of the combat operations of the fourth fighter regiment of the division - the 129th IAP (40 pilots, 61 MiGs and 57 I-153s). It was

this regiment that was located at the Tarnovo airfield, 12 km from the border, but it was not at all destroyed by the "artillery shelling" of the enemy. With reference to the archival fund of the 129th IAP (hereinafter

which became the 5th GIAP) the authors of the monograph (94) describe the first hours of hostilities as follows:

... The appearance of enemy aircraft in the early morning did not take the 129th IAP by surprise. At dawn, one squadron was lifted into the air, and at 04.05, during the battle with a dozen Bf-109s, the senior political instructor AM Sokolov, piloting the MiG, won the first victory. Just as successfully, a group of 18 Non-111s managed to repulse a raid on the Tarnovo airfield - the Germans failed to drop their bombs accurately.

In total, on June 22, the regiment shot down (more correctly, declared) 6 enemy aircraft, losing only two aircraft in the air. I. Girman and N. Erchenko were killed in air battles over the Tarnovo airfield, junior lieutenant A. Radugin was killed in a MiG-3 that caught fire during takeoff. And these are all the losses of the flight personnel of the defeated regiment of the disappeared division for the first day of the war. In air battles on June

22, the 129th IAP used up 15,000 rounds of 12.7 mm caliber and 36,000 rounds of 7.62 mm caliber. (94) This is exceptionally valuable information. Firstly, it follows from it that the synchronizer on the MiG-3 can be adjusted - if there is a desire - it is possible. Secondly, comparing these figures with the standard MiG-3 ammunition load (300 rounds for the UBS machine gun and 750 rounds for two ShKASs), we conclude that the regiment conducted at least 50 sorties, during which air combat with the enemy. It is possible that the information about 6 downed enemy planes has some grounds. In any case, the loss of only two aircraft in the course of fifty air battles indicates the high level of flight training of the pilots of the 129th IAP, and the quality of the MiG-3 fighter. The 129th IAP was defeated as a result of a strange "relocation", however, in the memoirs of the regiment commissar V.P. Rulin's story looks almost like a heroic saga:

... A decision was made: to withdraw the regiment from the blow. We will fly to another airport. It is necessary to allocate a team to destroy everything that remains: bomb ammunition, shells, cartridges and fuel (**how can the regiment be able to fight "at another airfield" without all this?** - M.S.). Berkal (**commander of the 129th IAP**) made the only possible decision in the current situation, but how hard it is to realize that it is the only one ... Everyone wanted to quickly sit at the helm of a combat vehicle and beat, beat the Nazis ...

... In two groups of "seagulls" and "migi" flew to the Dobzhenevka airfield, located just a few kilometers from the permanent base of the regiment - the city of Zabłudov. There, in winter apartments, the families of the personnel were accommodated ... A messenger arrived from the division headquarters. He gave the regiment commander an order: all planes to fly to the Kvater airfield before dark (**this is the same airfield east of Bialystok, where - according to the reports of the "special officers" - the 41st IAP ended its combat path**). Twenty-eight cars could take to the air, and five needed repairs (**and where are the other eight dozen aircraft ???**). And German tanks and motorized infantry were already rushing to the Dobzhenevka airfield (there were no tanks or motorized infantry in those places at all, but ordinary Wehrmacht infantry occupied Bialystok on June 25). Near the airfield there was an oncoming night battle (who fought with whom on the evening of June 22 near the town of Zabłudów, i.e., 80 km from the border?) Flashes of fire approached the airfield, surrounded it with a ring. At two o'clock in the morning, the technicians reported: "All the machines are in good order ..." All the planes that survived the day flew

... to the Bialystok and Grodno directions, mainly from border airfields, to the Kvatera airfield. Five "Migs" were transferred to the Baranovichi airfield (200 km east of Bialystok), also clogged with aircraft, mainly I-16 and I-15-bis fighters ...

... It was necessary to show restraint and discipline, to retreat to the rear and save people (**yes, this was the task that any director of an orphanage faced in those days**. - M.S.). The regiment commander gave the order: the remaining (**what does this mean ???**) personnel should gather at the Balbasovo airfield (**an airfield near the city of Orsha, 550 km east of the border**), a collection point for the flight and technical personnel of the district aviation regiments based at border airfields. Wasting no time, decided to move

afternoon...

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The following can serve as an important addition to this story: **"... Despite the loss of almost all materiel not during air battles, but on the ground, the loss of personnel also turned out to be tangible. Of the 248 people of the flight crew who were built in the morning of June 22, a week later they arrived in Orel to receive new**

aircraft only 170 Red Army soldiers and commanders. As follows from the documents, on the first day of the war, junior lieutenant N.F. was killed in battle over the Tarnovo airfield. Erchenko, did not have time to take off from Dobzhenevka and burned down in the cockpit of the MiG, junior lieutenant A.A. Radugin, several pilots were injured from fragments of air bombs, but against most of the names in the list of losses it was indicated "lagged behind during

relocation." (94) In the memoirs of the commander of the 43rd IAD, General Zakharov, we find another, very remarkable touch to the picture of "relocation": " ... **landing in Baranovich** (we are talking about the events of the early morning of June 22. - **M.S.**), **pilots 162- his regiment was seen by several Pe-2 and Su-2 bombers, several MiG-1, MiG-3 fighters and even Yak-1 fighters. These were crews from different aviation regiments and divisions, which in the first minutes of the war managed to take off under bombs ... "** (55)

Simply put, some pilots of the 9th SAD (and only there were "Migs" in it) began to "relocate" as a personal initiative, without waiting for any orders, "in the first minutes of the war"! By evening, there were many more such "migratory falcons". Zakharov writes that at the Minsk airfield he found **"aircraft of different systems, absolutely not camouflaged, everything was crammed with equipment."** Here, past these airfields (Kvater, Baranovich, Minsk), chock-full of combat aircraft, long columns of cars with pilots were driving, who **" wanted to quickly sit at the helm of a combat vehicle and beat, beat the Nazis ... "**

Minsk is "only" 350 km from the front. There were also leaders of the "relocation" who were able to fly in the first hours of the war right up to Smolensk!

On the alarming military morning of June 22, 1941, single fighters of the army aviation regiments of the Western Front began to land at the airfields of our air corps.

After tense air battles, many of them could no longer land on their damaged airfields, and some were immediately redirected to alternate airfields, including our...

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These are lines from the memoirs of Air Marshal Skripko. Before the war, his 3rd DBAK was based in the Smolensk region (600–700 km from the border of 1941). A rare fighter will fly there from Brest or

Bialystok, and there was no question of making such a flight on the remnants of gasoline after a "tense air battle"!

And what is most surprising is the words that on the morning of the first day of the war, someone "redirected" fighter aircraft to the deepest rear. Was there such an order? Is it possible that so much effort, so much money, so much talent, so much passion and intrigue was invested in the creation of fighter aviation only in order to start a non-stop "exit from under the blow" after the very first shots? In addition to four fighter regiments, the 9th

SAD also included one bomber regiment - the 13th BAP (45 crews, 51 SB / Ar-2 aircraft and 8 Pe-2). This is the same air regiment in which **"from dawn to dusk, squadrons of camouflaged aircraft with suspended bombs and weapons, with crews stood ready"** (we mentioned this in previous chapters). There is in the memoirs of P.I. Tsupko (at the beginning of the war - the crew commander of the Ar-2 bomber from the 13th BAP) and very strange episodes. They are not confirmed by any other (known to the author of this book) sources. And yet, since the glorious Politizdat twice (in 1982 and 1987) published a book by P.I. Tsupko, it's not a sin for us to quote two fragments from these memoirs, emphasizing some important words: **"... On Sunday, June 22, a day off was announced in the 13th air regiment. Everyone was delighted: they didn't rest for three months! .. On Saturday evening, leaving behind the senior chief of the headquarters operator captain Vlasov, the command of the air regiment, many pilots and technicians left for their families in Russia ... The entire air garrison remained in the care of the internal service, which was headed by the camp duty officer junior lieutenant Usenko ... "** (64, p. 12) But that's not all: **" the field airfield did not have anti-aircraft cover, because the day before the anti-aircraft battery was removed from its**

position and left for exercises ... about the approach of German aircraft, the VNOS service Not

informed..."

Despite such multilateral criminal negligence, the 13th BAP suffered minimal losses from the first German air raid (according to Tsupko, the first bombs fell very early, at 3 hours 47 minutes): "Having bombed, the Nazis flew away . **Two were killed, six fighters were wounded, two planes burned down - "SB" and "U-2".**

A few hours after the first German air raid (that is, still in the early morning of June 22), the Ar-2 crew under the command of Second Lieutenant Usenko flew out for reconnaissance in the Grodno-Avgustov region. The route of the reconnaissance flight is described in the book with the utmost precision. This allows you to estimate the flight time - at most two to three hours.

Consequently, no later than noon, the Ar-2 came in for a landing at the airfield of the headquarters of the 9th SAD near Bialystok. Usenko's plane had already landed, and at that time ***“soldiers in gray-green uniforms separated from the hangar and ran in an unfolded chain to the plane. On the other side of the hangar, Konstantin suddenly made out six three-engine transport “Ju-52”, even further - up to a dozen “Me-110” ... Gray-green figures scurried around the***

planes ... ”. (64, p. 29) In short, the Germans were busily settling in the airfield, located just a few miles from the headquarters of the 10th Army of the Western Front. Bialystok Regional Directorate of the NKVD and others. It's hard to believe this - at noon on June 22, all these respected organizations seemed to be in place and did not "relocate" anywhere. Judging by the report of the head of the “special department” of the 10th Army, the regimental commissar (in this case, this is a military rank, not a position) by the name of Los, they fled late in the evening: “The panic was facilitated by the fact that on the night of June 22-23 ***shamefully all the party and Soviet leadership of the Bialystok region. All employees of the NKVD and the NKGB, headed by***

the heads of the bodies, also fled. (151) However, in this case, we are not interested in the fate of the Belostok "Chekists", but in the actions of the command of the 9th SAD. Let's open once again the memoirs of V.I. Olimpieva: ***“... At the end of the day on June 22, all aviation units received an order to immediately leave the city and go to the East ... in the late evening of June 22, a long column left Bialystok and already early Monday morning was far outside the city ... Only the military with blue buttonholes were in the cars - the remaining without aircraft (???) pilots, aviation technicians, signalmen***

By the way. A common place in traditional descriptions of the defeat of Soviet aviation in June 1941 is bitter lamentations about the fact that "the rapid advance of the enemy ground forces forced them to leave even slightly damaged aircraft at the airfields." "You can't drag them on yourself," patriotic publicists proudly exclaim at the same time. The offer is correct. This is how it is supposed to handle extremely expensive military equipment. Carry on yourself. Open the memoirs of A. Pokryshkin - he describes in great detail how he single-handedly saved his crashed MiG-3 after a forced landing, how he towed it tens of kilometers along the roads of retreat. However, it is not necessary to make such inhuman efforts. In the 9th SAD (as in any other air division) there were thousands of people, hundreds of vehicles (***“a long column left Bialystok”***) and an unknown number of wrenches. Wing consoles on the MiG-3

attached to the center section at three points; the tail section of the fuselage is docked with the central section at four points; the engine is fixed to the motor mount with 12 bolts ... All this is unscrewed and undocked, weapons and instrumentation are removed. Most (if not all) of the "MiGs" arrived in the division in plywood boxes, by rail, and not at all by flight. The heaviest unit of the "Mig" - the AM-35A engine - weighed no more than 800 kg and, with a large margin in size, went crazy in the back of the "lorry" ... Let's return, however, to Olimpiyev's story:

... In the afternoon of June 24, we continued to move east. This Tuesday was actually the end of the 9th SAD. Eyewitnesses said that the planes left after the Sunday battle were transferred to the Volkovysk airfield (**probably, we are talking about the Kvatara airfield.** - M.S.). Not provided with air cover (**hundreds of fighters needed "air cover"?** - M.S.), they were destroyed in the morning by German dive bombers ...

At dawn on June 25, we saw the darkened city of Orsha in the lowland (500 km from Bialystok) ... From Orsha, our cars headed for Bryansk, but by mid-July they were relocated to Novoe Selo, which is seven kilometers north of Vyazma.

Seven kilometers north of Vyazma. If the Luftwaffe fighter squadrons decided to "get out of the way" with such a spatial scope, then they would find themselves exactly halfway between Berlin and Paris ... The memories of Sergeant

Olimpiyev completely coincide with what is known today about the fate of General S. Chernykh. The materials of the investigation and the trial of the commander of the 9th SAD have not yet been fully declassified, but V. Zvyagintsev, based on the materials of the case on the rehabilitation of Chernykh, reports that on the evening of June 26, the divisional commander and the remnants of the personnel of his division arrived in Sescha through Orsha (a town on border of the Smolensk and Bryansk regions), that is, they ended up in the deepest rear. The commander of the 9th SAD was charged with the fact that on the night of June 26-27, during an imaginary enemy air raid on Sescha, Chernykh fled in panic to Bryansk. (170) However, he was arrested only on July 8, that is, this "flight" was by no

means immediately regarded as something out of the ordinary. Traces of this highly confusing story were found, oddly enough, in the archives of the 1st Mechanized Corps of the Leningrad Military District. The 9th SAD had nothing to do with the fighting of the 1st mechanized corps, but in the documents of the operational

The headquarters of the corps contains a copy of the order of the People's Commissar of Defense (who also became the commander of the Western Front in early July) Marshal Timoshenko "On bringing a military tribunal to trial" dated July 8, 1941. There, in particular, says:

... The commander of the 9th SAD, Major General Chernykh, as a result of a criminal attitude to his official duties, a complete redeployment of ignoring **(highlighted by** environment, banned the material part **me. - M.S.)**, which contributed to the destruction of aircraft by the enemy at the airfield. In addition, being sent to the rear to form new units, Mr. Chernykh showed cowardice and alarmism there too ...

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All this is very strange. S. Chernykh not only did not "forbid" the relocation of the personnel of the division, but personally led it. To what point in time (before June 22, on the morning or evening of June 22) the accusation that the commander of the 9th SAD "prohibited the relocation of materiel" (if such a ban existed at all) is difficult to understand ...

It is even more difficult to sum up the results of the first day of the war in the 9th SAD as a whole. There is no such arithmetic that could describe this story. Fighter regiments lost no more than 10-12 aircraft in the air. The 13th BAP lost 1 SB bomber from the first strike on the airfield. At the same time, official Soviet historiography insists that the 9th SAD lost 347 aircraft on June 22, 1941. It remains only to agree that they were all lost on earth.

11th GARDEN

The fighting of the 11th SAD ended in the same way as in the 9th SAD. But here they started very differently.

... The predawn sky over the Lesishche field airfield was suddenly cut by a short arc of a rocket. Anxiety! Commander of the 127th Fighter Aviation Regiment, Lieutenant Colonel A.V. Gordienko, **who was checking the posts at the aircraft stands (that is, the commander was at that pre-dawn hour not "with relatives", but directly at the airfield. - M.S.)**, immediately went to the command post of the unit. **The operational duty officer (and he is in this regiment in his place. - M.S.)** reported by phone that he had received

message about the bombing of the city of Grodno by German aircraft. Having specified the cause of the alarm, Lieutenant Colonel A.V. Gordienko ordered **the duty link (of course, there is such a link, and it is ready for immediate take-off.** - M.S.) to fly to the attack area and find out the situation. One after another, the planes piloted by pilots Lieutenant I.E. Komarov, junior lieutenants A.N. Danilin and K.M. Treshev, at 3 o'clock. 30 min. went on a reconnaissance mission.

It should be noted that, although the regiment was formed in August 1940 from military personnel of various fighter units, by the beginning of the war it was a close-knit team capable of successfully performing combat missions. The skill of the flight crew was high. The professional pilots had excellent piloting skills, drove cars in difficult meteorological conditions **day and night**, some of them **had combat experience** gained in battles with the White Finns, in the area of Khasan and Khalkhin Gol.

The first air battle was carried out at five o'clock in the morning by five fighters, led by the political officer of the 1st squadron, senior political officer A.S. Danilov. To the north of Grodno, at an altitude of one and a half thousand meters, the pilots saw three twin-engine bombers on a head-on course and went on a frontal attack. Two Nazis, unable to withstand the onslaught, began to go back with a decrease, but the leading Junkers continued to fly. From the third attack A.S. Danilov destroyed it, and the flight commanders S.S. shot down the fleeing planes. Deryugin and I.F. Druzhkov. Returning from assignments lieutenants R.I. Varakin, S.Ya. Zhukovsky, senior political instructor A.A. Artemov also reported on new victories ... Soon, the pilot, senior political instructor A.S., again showed high skill. Danilov. The eight fighters led by him dispersed a group of enemy planes over Grodno, and west of the city of Danilov shot down a plane, the second one in the morning, which fell on the outskirts of the

village of Krapivno ... Returning to the patrol zone, the pilots saw that more than 40 fascist planes were preparing to storm the Cherlena airfield, where they were based 16th SBAP. From the east, Soviet fighters were rapidly approaching the enemy bombers in combat formation - two squadrons of the 127th **(most likely a typo, and we are talking about another fighter regiment of the division - the 122nd IAP)** aviation regiment ... Fight

lasted over 30 minutes. Up to 70 aircraft participated from both sides. The enemy had not only quantitative, but also qualitative superiority. Soviet aviators shot down 4 aircraft, but they themselves lost 5 fighters. Three pilots at different times got to their own, and two - lieutenants P.A. Kuzmin and N.N. Mikhailov - died ...

In the current situation, the command of the regiment sought **(for what? To get out of the strike as soon as possible?) To ensure the timely preparation of aircraft for repeated combat missions**, the uninterrupted supply of fuel and especially ammunition, the need for which has increased dramatically. There were many other issues that needed to be resolved quickly. And they did. The political staff of the unit was actively involved in the matter ...

In the afternoon, a group of pilots led by Lieutenant S.Ya. Zhukovsky. Having flown out to support ground forces in the Grodno-Skidel region, they met German bombers, which, under the cover of fighters, were reorganizing for an attack. In a fleeting battle, S.Ya. Zhukovsky and junior lieutenant B.A. Fokin shot down one enemy plane each, and the third fell victim to the entire group. Having disrupted the attack, the pilots returned to their airfield without loss ... **Until late in the evening, the pilots of the 127th IAP** fought against the fascist invaders, sparing no effort and life. In unequal air battles, lieutenants A.V. Gribakin, I.G. Markov, A.D. Petkun, A.I. Pachin, M.D. Razumtsev, M.S. Filippov and junior lieutenant P.V. Sushkin. Despite the severity of the fighting, the pilots literally rushed into the air. Squadron commander I.N. Drozdov made **five sorties** and shot down two planes, senior political instructor A. A. Artemov

took to the air **nine times** and destroyed three enemy

cars...

The enemy searched for almost the whole day, **but could not discover our airfield (!!!)**.

The command of the regiment attached great importance to camouflage. **Early in the morning, after the alarm**, technicians and mechanics **dispersed the materiel** and equipped aircraft stands at the edge of a large forest. These works were supervised by the communist engineer captain VS Kubarev. The pilots were ordered to use **tactical methods of masking the airfield**. Returning from assignments, they approached the base at low level flight. After landing

the planes immediately took cover. During takeoff, the required altitude was not gained immediately, but after leaving the airfield area at low altitude.

Only **after 19 hours the enemy discovered the airfield**, and soon about 30 Yu-87 bombers, accompanied by Me-109 fighters, flew in to attack it. **An air battle ensued (*of course, how else should a FIGHTER air regiment react to an enemy raid?*)**. Despite the obvious advantage, the enemy still failed to destroy our planes on the ground **(*what prevented them from shooting the planes of the 127th IAP "like at a training ground"?*)**. The bombers **attacked by the Soviet pilots** did not conduct aimed fire, but hit the squares, their bombs did not reach the target ... The Soviet government highly appreciated the successes of the 127th IAP, which made **180 sorties on the first day of the war ...**

(124)

Probably, if we remove the mention of the "first day of the war" and geographical names from the text, then the Soviet reader brought up by Soviet writers will categorically not believe that we are talking about June 22, 1941. In comparison with Veselovsky's story, one gets the impression that the events are taking place in another country, in another army, on another planet...

But there was only one planet, and the 127th and 31st air regiments were located on this planet at a distance of less than 200 km. And to top it all, the 127th IAP (unlike the 31st) was armed not with the latest, fastest MiG-3 fighters in the world, and not even with honored veterans of the I-16, but with obsolete slow-moving biplanes "I-153", which many authors generally refuse to include in the list of fighter aircraft. But - maybe all of the above is just ordinary propaganda? Publication date - 1971,

the author of the article, A.P. Proskurin, served as deputy commander of the 127th IAP for political affairs ... At the present time, all this does not sound very convincing. Let's try to evaluate the information about the successes of 127 IAP according to reports "from the other side of the front." Historians R. Larintsev and A. Valyaev-Zaitsev published (70, 131) a copy of several pages from a document with the

long title "Daily reports of the 6th Department of the Service of the Quartermaster General of the Luftwaffe (files of the Military Archive of the FRG RL 2 III / 1177-1196)".

It is this document that we have repeatedly mentioned above under the title "Luftwaffe Loss Journal". As the publishers themselves note, the method of processing the reports of the commanders of the Luftwaffe units was such that many damaged and under repair aircraft fell into the loss log with a delay of several weeks or even months. Thus, this document gives, in fact, the minimum bound for estimating the number of downed and damaged aircraft. So, Grodno is found in the entries for June

22, 1941 seven times. And every time next to the indication of the serial number of the aircraft shot down over Grodno, there are full-fledged 100%.

Shot down: one "frame" (scout FW-189), one twin-engine "Me-110" and five "109's" "Messers".

And one of them - together with the commander of JG-27 Schelmann. These seven aircraft, on the one hand, cannot be firmly and accurately attributed to those shot down by the pilots of the 127th IAP - another fighter regiment fought near Grodno, the incredible events of which will be discussed below. On the other hand, the crash sites of many German planes are not specified, in many cases it is the place where the "uncontrolled collision with the ground" occurred, and not the place of the air battle. In any case, the 20 downed German aircraft declared by the pilots of the 127th regiment, most likely, do not go beyond the "normal" threefold overestimation of the number of

victories. In no way trying to belittle the merits of the commander of the 127th IAP, we note, however, that Lieutenant Colonel A.V. Gordienko did not invent any "Newton's binomial", did not use any technical or tactical innovations in the battles of June 22. In the part entrusted to him, "only" the orders of higher commanders, the Charters and Instructions were carried out conscientiously and on time. Even this modest "only" turned out to be enough to inflict damage on the enemy, quite comparable to our own losses, while fighting on outdated equipment.

In addition to the 127th IAP, the 11th SAD included the 122nd IAP (50 pilots, 71 I-16s). Lieutenant S.F. began his combat path in this regiment. Dolgushin - in the future Hero of the Soviet Union, lieutenant general, head of the department of tactics at the VVIA them. N.E. Zhukovsky. The historian from Grodno V. Bardov kindly provided the author of this book with a record of his many hours of conversation with Sergei Fedorovich. These unique testimonies allow you to see the events of June 41st "from a very close distance":

... The I-16 aircraft that we received in the regiment were the 27th and 24th series, with M-62 and M-63 engines. Literally all of them were new machines, and each pilot had: 72 aircraft - 72 pilots in the regiment. Everyone has their own car, so everyone had a large flight time in hours, and the pilots' flight training was strong. I started the war with a flight time of 240 hours (!!!), and this is for 1940-1941 ... We flew almost every day, well, Sunday was a day off, and on Saturday we flew ... After all, the I-16 when you master it — the car was good! He caught up with the Junkers-88, and the Heinkel-111, and the Yu-87, of course, shot everything. Fighting, of course, was more difficult with the Messerschmitts, but still, due to maneuverability, you can ...

... On the evening of Saturday, June 21, 1941, we were disarmed: we were ordered to remove the guns, machine guns, ammunition and place in the quarters. I consulted with my guys, and we removed the cannons and machine guns - we were forced to. And they left the cartridge boxes ... Such a condition - it's the same as being naked ... We asked: "Who issued such an idiotic order ?!" And the regiment commander Nikolaev explained to the squadron commanders (and those, in turn, to us): "This is an order from the commander of the Belarusian military district D.G. Pavlova". The day before, he came to our airfield together with the commander of the Air Force of the district, Major General

Somewhat later, already in the story about the events of June 22, a commission from Moscow suddenly "pops up", in front of which (and perhaps under whose pressure) the planes of the fighter aviation regiment were disarmed at the border airfield.

...Before that, we had a commission from Moscow, they flew in on the Li-2. He stood at the airfield - the Germans first of all burned him, and they left by car, their entire commission was Moscow ... It was headed by a colonel, the head of the operational department of the Air Force. There was also M.N. Yakushin, who fought in Spain. He was an Air Force inspector and was in this commission, he flew with me on a "spark" - he checked ...

What was it? The episode with the dismantling of weapons from the aircraft of the fighter regiment, which was located on the evening of June 21 at the Novy Dvor airfield, 17–20 km from the border, Dolgushin cites in a short interview published on December 18, 2001 in Krasnaya Zvezda, and in fairly detailed memoirs, posted in 2007 on the site

"I remember". (172) There is no one to find out the motives for such a strange decision: I. Kopets died (shot himself?), D. Pavlov was shot (from the published materials of the investigation and the trial of the command of the Western Front, it is clear that Pavlov was knocked out of testimony about "Trotskyism" and shot in 37th year of Uborevich; the real circumstances of the defeat of the front, including the episode with the disarmament of the 122nd air regiment, were not of interest to the "investigators").

... On Sunday, June 22, at 2.2.30 a siren rang out: alarm! Well, they gathered on alarm: they grabbed suitcases, helmets, raglans. We ran to the airfield: technicians were trying out motors, and we began to carry cannons, machine guns, and ammunition. And insert the cannon into the wing - it's not wide! And insert a 20 mm cannon there - you will rip off all your hands, and there the center section is covered with duralumin, and the hatch where to stick the cannon is also duralumin. And everything is on stilettos - you will rip off all your

hands! ... I reported to the squadron commander: "The link is ready!" He called the squadron commanders. We gathered, we were sitting and suddenly we saw: from the direction of Bialystok there was a flight of planes (eight "109s"), but it was still far away when we saw them. They flew in and began to storm, but we had already sorted out the cars and dispersed them.

... The 1st squadron began to take off first, because it was next to the tents, the planes were literally 15-20 m from tents. Therefore, they were the first to prepare, and we still had to run across the airfield, and then only to get on the planes. The 1st squadron began to take off first, and when they had already taken off, other squadrons began to take off - then the raids had already stopped. That's all already — the "fight" had begun, the Germans understood... And then, they saw... The spies probably told them on the radio that the regiment had left the airfield... While I was taxiing and taking off, they hit me with 16 holes. When I took off, removed the landing gear and took off, the "Messer" "left" me - they did not deal with me, and six of them were already over the airfield. And this six - they absolutely did not pay attention to me, they were preparing to land on the airfield.

This piece looks very messy. It is not clear - who, where, why? What exactly did the "Germans understand"? Then everything gradually becomes clearer: ***"... I walked around (meaning I flew), looked and went to the border, and when I walked and looked over the border, I came across a German communication aircraft from the Fiesler Storch company (a light aircraft with ultra-short takeoff and landing, such as our "U-2"). I gave one turn, and he "stuck" into the ground. Then he went to Skidel (the base airfield of the 127th IAP) - there was no one there, above***

Grodno passed and returned to the airfield. The squadron commander says: "We are flying away, the regiment is flying to Cherleny (an airfield near the town of Mosty on the Neman, about 75 km from the border). You let's refuel and fly there ... "The regiment flew away. I was almost the last to leave Novy Dvor..."

At this point, we will interrupt Dolgushin's story for a while and try to understand at least something in what we have read. Yes, it's very difficult. It was much easier for decades to replicate the story about how "the Germans flew in and killed everything at

the airfields." The first thing to note is that the regiment was alerted at 2.30 in the night. Two hours BEFORE the appearance of the first "Messers". Raised on alarm, the personnel of the regiment managed to "disperse and disperse" the aircraft. They even managed (if not on all, then at least on some fighters) to put the removed weapons in place. Dolgushin evaluates the results of the first enemy raid with the words: **"There were no special losses: one car was beaten."** A more dramatic picture is drawn by the reports of the headquarters of the 3rd Army (whose operational subordination was the 11th SAD): **"... from 0430 to 0700, 4 raids were made on the Novy Dvor airfield by groups of 13-15 aircraft. Losses: 2 aircraft burned down, 6 disabled. 2 people were seriously wounded, 6 were lightly**

wounded ... " (10, 137) Be that as it may, after the first enemy raids, the 122nd IAP undoubtedly survived, and the losses in the aircraft amounted to no more than 5-10% of the original number. And this is in the most unfavorable circumstances not provided for in any Charters (weapons removed from aircraft a few hours before the start of hostilities). The main events take place after the first raid: the commander of the 122nd IAP decides to fly to the rear (however, for the time being - to the near rear; however, Dolgushin claims that he saw German tanks from the air 5-10 km from the Novy Dvor airfield). It is known for certain that there were no

German tanks on the right flank of the Western Front, near the city of Grodno - the nearest to the scene of the events, the 12th Panzer Division of the Wehrmacht approached Merkina at noon on June 22, i.e. was 60 km to the north. From the height of the flight, one could take "assault guns" for tanks, one or two batteries (that is, from 6 to 12 units) of which were attached to the 256th Infantry Division, which was advancing on Novy Dvor. There were other, Soviet tanks in this area - more than three hundred tanks of the 11th mechanized corps, which (according to the reports of the Soviet headquarters) **" during 22 and 23.6 they fought on the front of Konyukhi, Novy Dvor, Dombrovo."** That, however, did not prevent the Luftwaffe fighters from starting on the morning of June 22 to develop their first airfield on the occupied Soviet territory. In general, the airfield in Novy Dvor was not deprived of the attention of historians and

publicists. Thus, in the history of the combat route of the 256th Infantry Division, it is noted that **"the advanced units of the 481st Infantry Regiment reached the field airport at 12.30, 4 km north of Novy Dvor and shot 19 aircraft that were already caught at the start."** On July 2, 1941, the Nazi officialdom, the Völkischer Beobachter newspaper, devoted an entire article to the accomplishments of the commander of the 481st regiment - albeit under the title "Brilliant Heroic Death". The article also says that **"the regiment's advanced unit stormed the field airfield of the Bolshevik Air Force and destroyed 19 aircraft in the process."** But with the "assault" Goebbels propagandists got excited ... Now

let's return to Dolgushin's story:

... I flew to Lida (80 km east of Grodno) somewhere around 11.30-12.00. Two nines also landed in front of me on this airfield, because they bombed in Cherleny - you can't sit down. And so, when our taxis were taxiing, Me-110s swooped in and, catching ours there on taxiing, they began to hit everyone who was taxiing on the airfield runway. And there were many more planes on the taxiway. As a result of this Me-110 raid, they did nothing to the vehicles, but the division commander Ganichev was wounded in the stomach, and he died 2 hours later, his deputy Colonel Mikhailov was wounded in the leg and killed one of the pilots

After this attack in Lida, we flew to Cherlena (??? **"you can't sit down" there?**) to the regiment, the regiment is there ... But frankly, I'll say: those who had wives went to their wives, and we, bachelors, flew away. After the death of Ganichev, no one commanded the division: the division was left "without a rudder, without sails." The commander died, Mikhailov was wounded, and I didn't even know

the chief of staff We flew in and landed in Cherlena, where the I-153 "Seagull" fighters of the 127th regiment were in service (perhaps Dolgushin is mistaken in the name of the airfield, **because it was not the 127th IAP that was based in Cherleny, but the bomber 16th BAP.** - M.S.), armed only with ShKAS machine guns, and we have a squadron with I-16 cannons. And in Cherleny there are no shells for cannons, because our technicians traveled from Novy Dvor on their own and

by that time were still on the way Well, we began to work on bridges in Grodno - to cover the bridges and cover the withdrawal of our troops through bridges. It was there - above the bridges - that I shot down my first Ju-88 bomber. While we were fighting, the bridges in Grodno were

We saw how our troops crossed these bridges - retreated to the right bank of the river. Neman, and until the end of the day the bridges remained intact When it got dark and the night came, the command came: "Fly to Lida!" And here is your answer - to those who say that we had untrained pilots: the regiment lost 5 or 6 vehicles, and more than 60 vehicles in the regiment were still "alive"! And the pilots in the 127th regiment are the same phenomenon. They came to land, and the runway in Lida was dug up: a concrete strip was being built there, in connection with which there was a narrow landing strip, on which there was especially nowhere to sit even during the day. So, the training of the pilots was so strong that during the landing we did not break a single aircraft.

... More than a hundred cars accumulated at the airfield: our I-16s and I-153s from the 127th IAP ... We landed in Lida without technical staff, without everything. The cars are empty - the ammunition is empty, the batteries are dead, there is gasoline, but it is in tanks underground, there is nothing to get. And with canisters and buckets - try to pour 300 kg into the plane with a bucket! And not a single tanker — everything was left at the airfield, in Novy Dvor and Cherleny. The flight crew did not eat anything all day, each made 5-6 sorties and were tired and exhausted so that neither arms nor legs could work - we could barely move our legs, and then, what a moral state - you

understand Early in the morning, 23 June, when it was still dark, we were alerted. We ran to the airfield, and our cars had empty tanks - they couldn't take off, nothing. And "Me-110" destroyed everything that was (*or almost nothing - see below*) on earth. Two regiments were defeated and ceased to exist. We were put in cars and taken to Moscow via Minsk, for new equipment. They all left Lida together - the pilots of the 122nd and 127th regiments, got into cars and everyone left ...

And I'm sure that 50% of the "live" aircraft of both regiments remained there, or even

more! This is how the existence of two regiments ceased ...

Along with two fighter regiments, the 11th SAD included a bomber regiment - the 16th BAP (46 crews, 24 "SB" and 37 new "Pe-2"). This regiment was defeated, defeated practically without a fight and in the very first hours of the war. In the report of the political department of the 11th SAD, sent to Minsk at 14.50 on June 22, we find a short entry: **"at 9.50 am. 37**

Yu-88 planes raided the Cherleni airfield. The planes of the "SB" regiment are on fire. Details and losses are unknown ... "

In the report of the commander of the Air Force of the 3rd Army (at that time there was such a strange position in the Red Army, in fact duplicating the duties and rights of the commander of the 11th SAD) to the commander of the Air Force of the Front dated June 24, the time of the raid was shifted from 9.50 to the first minutes of the war, and "details and losses " are named quite categorically: ***"At 4.00 on 22.6.41, the enemy attacked our airfields at the same time. The entire 16th bomber***

regiment was put out of action..." (10, p. 139). no air defense was organized. 9 people died in the air - the link of Captain Protasov, and on the ground 6 people died and 15 people were injured. The personnel disappeared behind thick pines and largely managed to escape ... "

An even simpler and even more ugly picture is depicted in their stories by very "simple" people - not marshals and not scientists. A.B. Fedorova worked as a salesperson in the military department of the 16th BAP. In her memoirs (recorded by a historian from Grodno D. Kienko) we read:

... On May 2-3, the regiment flew to the Cherlena field airfield ... The first raid on Cherlena was made at about 4 in the morning, the second at 8 in the morning. After the second raid, there were no planes left suitable for takeoff ... The first raid was directly on the aircraft stands, and then on the tent city. By this time, they managed to leave him and hide in the forest ...

Another letter, this time from the son of a participant in the events:

I, Salnikov Georgy Georgievich, son of Salnikov Georgy Ivanovich, gunner-radio operator of the 16th SBAP. Somewhere in 1952-53, he told me, a boy, the tragic story of the beginning of the war ... I woke up from a roar and shooting (***but not from a combat alarm.*** - M.S.). In front of his eyes, his commander Protasov took off and went to ram. As I understand it, he served in his squadron. Then, an hour later, German motorcyclists appeared, with whom they entered into battle, but soon German armored personnel carriers with infantry appeared, and they had to retreat. Somewhere at 10-11 in the morning they found an abandoned "lorry", the father wiped the wet distributor and started it. There are 20-25 people out of 16 on it

the regiment reached Lida, they had the banner of the regiment and staff documents. They were all arrested, but soon released ...

According to the author of this book, the most accurate and reliable information is contained in the story of the saleswoman: the personnel of the regiment "hid in the forest." As for the "German armored personnel carriers with infantry" (there were one such company in the Wehrmacht tank divisions, and even then not in all), there were none at all in the Mosty area; the foot infantry of the Wehrmacht appeared in those places not at 10 am on June 22, but three or four days later. Why the pilots of the 16th BAP were arrested in Lida is understandable. Why "soon released"? Most likely, because those who arrested also "brought a lorry" and quickly "relocated" in an unknown direction ...

The above-mentioned historian D. Kienko gives an unexpected explanation for the carelessness of the command and personnel of the 16th BAP, which allowed them to shoot the latest bombers (in June 41st there were not so many Pe-2s in any regiment of the Soviet Air Force), like a target at the training ground : ***"... The regiment until 10 o'clock in the morning remained in the dark about the outbreak of hostilities. Residents of the town of Lunno, which was 2 km from the airfield, heard and saw the bombardment of the neighboring Borisovshchizna airfield (the 13th BAP from the 9th SAD was based there) as early as 4 o'clock in the morning. Two neighboring airfields were separated by some 12 km. But the Cherlena airfield is separated from the town of Lunno by the Neman River and a forested area on a hill, which, on the one hand, muffled the sounds of explosions, and on the other, hid the black smoke rising from***

the bombed-out parking lots of the neighboring airfield ... "(173)
Strongly said . The burning aircraft of one regiment, alas, could not be used as signal fires to alert another air regiment. There was no car, motorcycle, bicycle, or at least a children's scooter that could cover 12 km in 6 hours at two airfields. The fact that there were no means of radio communication in the Red Army is "know" by everyone, and it is practically useless to argue with this "knowledge". I will confine myself to a brief reference - as of April 1, 1941, the Red Army Air Force (not counting on-board radios) had: (174)

- 32 radio stations "PAT" (power 1.2 kW, range from 600 to 2000 km): - 404 radio stations

"RAF" and 11 "AK" (power 400-500 W, range up to 300 km); - 460 radio stations "RSB" and 5 "AK" (power 50 W, range actions from 50 to 100 km).

Quite unexpectedly, another full-fledged "evidence" (that is, an eyewitness account) was found in the memoirs of N. Bogdanov, the crew commander of a long-range bomber from the 3rd DBAC. No, of course, he could not witness the defeat of the 16th BAP, but he saw - and even destroyed - the material consequences of the flight of personnel : ***district of Grodno. At the same time, the second group, which included my crew, bombed the airfield, captured by the Germans along with our equipment. It was hard to bomb our planes around the airfield, especially the SB. They were very light, maneuverable and reliable machines...*** (129)

Now let's sum up the first arithmetic results. The 127th IAP suffered on June 22, probably the biggest losses among all the fighter regiments of the Soviet Air Force. In the above document, 7 dead pilots are named by name. Aircraft could have been lost more, about 10-15. The 122nd IAP lost a maximum of 5–7 aircraft in the air. Three of our bombers were shot down in the sky over the airfield of the 16th BAP. At the same time, official Soviet historiography invariably stated that the 11th SAD lost 127 aircraft on the first day of the war. We have to admit that more than a hundred combat vehicles were lost not in the air, but on the ground.

10th GARDEN

The division under the command of Colonel N. Belov was based east of Brest, in the Kobrin-Pruzhany-Pinsk area. The division had four regiments: 123 IAP (71 pilots, 61 I-153 aircraft and 20 new Yak-1s), 33 IAP (70 pilots, 44 I-16 aircraft), 39 BAP (49 crews, 43 SB and 9 Pe-2 aircraft), 74 ShAP (70 pilots, 62 I-15bis and 8 Il-2 aircraft) On the eve of the war, this division also happened

(more precisely - could happen) a typical mysterious event. At 4 pm on June 21, at a time when the roar of thousands of engines of German troops advancing to the Bug was already audible to the naked ear, the commander of the 10th SAD received a new encryption from the district headquarters: an order on June 20 to bring the units to full combat readiness and prohibit cancel holidays! Colonel Belov writes in his memoirs that he did not even bring such an order to his subordinates, but why was this order given?

The base area of the 10th SAD turned out to be right at the tip of the main blow of the most powerful Wehrmacht grouping - the 2nd Panzer Group under the command of Guderian. The largest in terms of numbers (four groups, 121 serviceable Messerschmitt) operated here, and the most combat-ready - taking into account the number of highly experienced fighter aces in its composition - the JG-51 squadron, completely re-equipped with the "Messer" of the latest modification of the Bf-109F. In addition, the 1/JG-53 fighter group, also armed with Bf-109Fs, also fought in the Brest-Kobrin zone. It would seem that it was almost impossible to resist them on "seagulls" and "donkeys".

Moreover, the Brest area turned out to be the only point on the map of the huge Soviet-German front where the Luftwaffe fighters had a significant numerical superiority (as of June 1, there were only 90 serviceable fighters in the 10th SAD, plus 20 "yaks", obtained in just a few days before the start of the war). However, when the longest day of the year ended, the pilots of the JG-51 squadron reported only 12 Soviet fighters shot down. (63) Pilots of 1/JG-53 claim for 5 downed fighters (four Seagulls and one I-16). Total - 17. At the same time, in the Luftwaffe loss log for June 22, 1941, we find eight references to JG-51 squadron fighters shot down or damaged in the Brest area: five "Messers" were destroyed irretrievably, three aircraft received damage that could be repaired in the field conditions. Comparing these figures, we must not forget that we are dealing with qualitatively different values: on the one hand, the number of declared victories, on the other hand, real losses recognized by the enemy himself. If we count the "applications" from the Soviet side, then Belov in his memoirs claims that the fighters of his division shot down 30 German aircraft on the first day of the war (of all types, not only fighters). The strangest thing is different: the enemy claims only 17 downed fighters (downed, mind you, for the whole long day of June 22), but in the operational

report of the headquarters of the 4th Army on June 24, signed by Colonel L.M. Sandalov, it is said: **"... the 10th mixed aviation division on 22.6.41 suffered huge losses (both fighter and assault aviation regiments were almost completely destroyed) in the first half of the day and did not take part in hostilities ..." (10, p. 149)** How, when, under what circumstances did this "almost complete annihilation" happen? There is a certain clarity only with the history of the disappearance of the 74th ShAP. The

former division commander writes in his article: **"... At 4.15 the airfield of the 74th**

assault regiment was attacked by aviation ... 10 Messerschmitts in

aircraft were shot down for several minutes (usually in the books of Soviet historians, a raid on a "defenseless airfield" lasts a couple of hours, but Belov is a military pilot, and he cannot lie like that, because he knows that the Bf-109F ammunition is enough for 50 seconds of continuous firing from machine guns and 11 seconds - from the MG-151 cannon) ... **As a result, all fifteen I-15s and two Il-2s were destroyed ... The personnel left without aircraft (???) took away documents, a banner and command Chief of Staff Major Mishchenko** (and where was the regiment commander?) **departed to the east...**" (44, p. 143)

Colonel Belov passed away in 1972. It is no longer possible to ask him what **"all fifteen"** means if there were 62 of them all. There is no one to know where the six latest Il-2 attack aircraft have gone. A little help is needed here. "IL-2" was considered at that time a top secret weapon of the Red Army. V.B. Emelianenko in his memoirs (48) writes how in mid-June 1941 his 4th ShAP was re-equipped with the Il-2. At first, the pilots studied the hydro- and electrical circuits of a certain mysterious "aircraft H", which they were not shown even in the picture! When the first few "silts" were brought from Voronezh, from factory No. 18, the pilots were first allowed to admire them, and then the **"military with red buttonholes"** (*that is*, the NKVD officers) covered the planes, sealed the ties of the covers and put up their own (!) security...

If everything is clear with the 74th ShAP - in the first minutes of the war, the flight crew "departed to the east", then it is much more difficult to understand the events that took place in the 33rd IAP. There is no doubt that the Pruzhany airfield was subjected to repeated and very powerful attacks by enemy aircraft (perhaps this was due to the fact that the main axis of the offensive of Guderian's tanks passed through Pruzhany to Slonim and the Germans tried to "clear the air" as much as possible for further actions of their dive bombers). Belov writes: **"... 20 Heinkels flew into the airfield in Pruzhany. They operated under cover of a small group of "Me 109". At that time, there was only one squadron at the airfield** (which means that only one squadron in the regiment could suffer losses. - *M.S.*). **She rose to meet and entered into an unequal battle. Soon the remaining three squadrons returned from the mission (they covered the Brest-Kobrin region, where they fought with enemy bombers) and also entered into an air battle ... The pilots scattered the German bombers, and they randomly dropped bombs, almost without causing harm. In this battle, five enemy aircraft were shot down** (the only loss in this battle that Belov writes about was the death of Lieutenant S.M. Gudimov, who rammed a German bomber) ...

... The Nazis inflicted another bombing attack on the airfield with twelve Junkers Yu-88s, soon an assault raid by twelve Me-109s, thirty minutes later another one. There was not a single aircraft left in the regiment capable of taking off ... I ordered the entire personnel of the 33rd IAP to concentrate on the airfield in Pinsk (150 km east of Brest) and wait for my orders. By 10 o'clock, the fighting of this regiment had actually ended. (44, p. 143) From the further description it unequivocally follows that Belov had in mind exactly 10 o'clock in the morning, and not in the evening. Belov's memories

practically correspond to the reports preserved in TsAMO, according to which the Pruzhany airfield was attacked at 5.30 by 15 Heinkels, then at 8.40 and 9.15 by two Bf-109 nines. The same sequence of two assault strikes by the squadron of "Messers" is described - with reference to documents compiled by punctual Germans - in an article by D. Khazanov, but this action takes place in the late evening, and not in the early morning: "... At 21.20 the fourth staff of the fighter **squadron JG51, consisting of nine Bf-109Fs under the command of Lieutenant E. Hohagen, attacked the aircraft stands of the 33rd IAP at the Pruzhany airfield, then at 21.31 and 21.38 two more groups of Messerschmitts approached. Upon returning to the base, the German pilots reported the destruction of 17 Soviet aircraft on the ground ...** " (63)

So, the complete destruction of all aircraft of the regiment by successive enemy strikes by 10 o'clock in the morning (according to Belov's story) is replaced by the loss of only 17 aircraft on the ground (39% of the original number) by 10 o'clock in the evening. The habitual and so beloved by historians "at dawn on June 22" turns into late evening. This question needs further study. One thing is certain - if **"the entire personnel"** of the regiment at 10 o'clock in the morning was ordered **to "relocate to Pinsk"**, then at 21:20 there was no one at the airfield in Pruzhany, and the Germans valiantly stormed the planes left during the retreat. All the more attention deserves the fact that even in this case (the deserted airfield, the absence of any opposition), the Germans reported only 17 destroyed aircraft, while according to the version of the chief of staff of the 4th Army, Sandalov, "the fighter regiments lost almost all aircraft **and could not perform combat missions.**

From what Sandalov writes in his monograph, it follows that on June 23 the headquarters of the 10th SAD was still in Pinsk (150 km from Brest), that is, in the combat zone. However, those who continued to fight did not find any traces of the headquarters of the 10th air division and its commander on June 23 in Pinsk. **"The headquarters of the 10th SAD was evacuated, I don't know where. I'm sitting in Pinsk, heading t**

fighters. Yesterday, 22.6.41, we conducted 8 air battles, shot down 7 bombers, 3 Me-109s, 1 reconnaissance aircraft. I myself participated in the battle near Pinsk, shot down 2, I myself was unharmed. Today, 23.6, the group made 3 sorties. I am waiting for instructions on what to do next,” captain M.F. sent such a strange report to the headquarters of the Air Force of the front. Savchenko, who replaced Major B.N. Surin, who died on June 22 in an air

battle. (50) The main “booty” of the German fighters on June 22 was Soviet bombers from the bomber regiments of the “second echelon” of the Air Force of the Western Front, which throughout the day attacked the crossings on the Bug and German airfields in the area of Siedlce and Biala Podlaska. As a result of the almost complete loss of control, both on the scale of the Air Force of the Western Front, and within the air divisions themselves, fighters (at best) defended their own airfields, and bombers flew on missions without any cover. This could not but lead to huge losses - no front-line bombers of that time, neither the German Dornier and Junkers, nor the Soviet SB and DB, had defensive weapons sufficient for effective self-defense. On the first day of the war, fighter squadron JG 51 claimed 57 bombers shot down; 16 bombers shot down in the Brest-Kobrin area were reported by the pilots of the I / JG-53 fighter group. In particular, at 9.30 in the morning near the bridge over the Bug near the village of Melnik, judging by the reports of fighters from JG-51, 16 SB aircraft were shot down. Theoretically, these aircraft could belong to the 39th regiment of the 10th SAD. However, as can be judged from the memoirs of Colonel Belov, the hostilities of the 39th BAP ended even BEFORE the battle in the sky over the Bug: “... **From the airfield of the 39th BAP at 7 o'clock in the morning, nine under the command of Captain Shcherbakov rose ... The Germans mistook our bombers for their . Nine successfully completed the task. Approximately an hour later** (i.e., at 8–9 o'clock in the morning), **25–30 enemy bombers flew into Pinsk. But at the airfield there were only cars damaged during the first raid** (although there is not a single word in the text about this very “first raid”!). **All serviceable planes have already flown to another airfield...**” Sandalov describes the same events in a completely different way:

... At about 10 o'clock in the morning, with subsequent strikes, German aviation also defeated the bomber regiment of the 10th SAD at the airfield in Pinsk, destroying almost all aircraft, including the new Pe-2 bombers, which were not even refueled.

Only 10 SB aircraft remained in the regiment ...

(34)

Whom to believe? The division commander writes that, at the latest, at 9 o'clock in the morning, the regiment had already moved from Pinsk to "another airfield." The chief of staff of the army claims that at 10 in the morning almost all the aircraft of the 39th BAP at the airfield in Pinsk were destroyed. Noteworthy is the message that even the newest Pe-2s were not refueled - and this was 7 hours after the announcement of the combat alert? Another version of events is given in the report of Comrade Leonov, authorized by the "3rd Department" for the 10th SAD, dated June 27, 1941:

... As a result of absent-mindedness (*as in the text.* - M.S.) of the command and the lack of an order to act, the aircraft materiel in the 39th SBAP was destroyed. During the last raid, the SB plane that took off shot down the enemy Yu-88 aircraft. Anti-aircraft machine guns at the airfields were inactive. The machine guns on the surviving aircraft were not activated. Between the breaks in the raids, no measures were taken to save the equipment of the aircraft ... The entire flight crew was at the airfields, did

nothing, that is, they did not go to the rear and were at a loss, as a result of the fact that there was nothing to fight (???). At the airfields, preparations were mainly made to repulse the alleged landing of troops (???). Stocks of bombs, food, uniforms were not taken to the rear, the bombs were not dispersed. With the attack of the enemy on the air garrison of the 123rd and 33rd IAP, the reserves, apparently, will not be destroyed, since the evacuation is completely unorganized, they are running in disarray, then the main attention of these garrisons will be focused on saving the lives of families ...

(151)

The first day of the war was a little more successful for the bomber divisions of the "second echelon" of the Air Force of the Western Front - "ground losses" were almost zero. In the memoirs of the commander of the 13th BAD, Polynin, only one mention of German air raids is found:

... About thirty minutes later, Kalinin reported:

- The airfield was attacked by seven Junkers. Two of them were shot down by fire from the ground from turrets, two were set on fire by some of our fighter pilots who were in the air on the I-153. All four bombers fell not far from the airfield, they are burning out ... On the first day of

the war, the Germans flew three times at our airfield, but did not cause much damage. Only two cars burned down. Bombing was carried out from a great height and inaccurately ... On June 23, the Nazis began to carry out raids on our base airfields. But the bombs they dropped, as a rule,

fell on empty places. At the end of the flights, the aircraft quickly dispersed to alternate airfields and carefully camouflaged ...

(49)

And even more so, single Luftwaffe raids on airfields located in the deep operational rear of the front of the 3rd air corps of the DBA turned out to be ineffective: " ... ***On the morning of June 23, the enemy bombed our airfield. The raid was ineffective, the Nazi pilots failed to damage the runway.***

Our planes did not suffer either ... " (129) N.G. recalls this. Bogdanov, crew commander of the DB-3f bomber from the 212th DBAP. Most likely, this is the only such episode, since the corps commander N.S. Skripko, in exceptional detail, literally by hours and minutes, describing the events of the first days of the war, does not mention any enemy air raids on the airfields of the 3rd DBAC.

The bomber regiments of the Air Force of the Western Front, which almost completely retained their aircraft on the ground, inflicted numerous strikes on targets on enemy territory in the first days of the war. In the final report of the commander of the Air Force of the Western Front, N.F. Naumenko from 31.12.41 we read: "***... Parts of the Air Force of the Western Front entered the war on the morning of June 22, 1941. This day is characterized by ... the organization of retaliatory strikes on enemy airfields Sokoluv, Sedlec, Lukow, Byala Podlaska, on enemy groupings in Tsekhanovets, Konstantinów, Rygali, oz. Serves, Augustow, Suwalki, for industry in Koenigsberg, Warsaw ...*** " (10, p. 131)

Summing up the results of the events of the first day of the war in the sky over the Western Front, only one thing can be said with all certainty - it will never be possible to give exact numbers. Reports of German pilots

unreliable by definition, as are the reports of any fighter aircraft of any air force in the world. The documents of the Soviet air regiments and divisions either did not survive or were drawn up retroactively; to a large extent - according to rear rumors and with the aim of creating a personal document of justification. In such a situation, only indicative estimates are possible.

Summing up all the available scraps of information "from the Soviet side" suggests that the fighter regiments of three divisions of the first echelon of the Western Front Air Force (11th, 9th, 10th SAD) lost 30–40 aircraft in air battles. And no more.

German fighters from JG-51 reported 12 Soviet fighters shot down, III/JG-53 and I/JG-53 pilots reported 20 and 5 fighters shot down, respectively (but here we must take into account that the III/JG-53 group operated at the Western and North-Western fronts and part of the aircraft shot down by it belonged to the composition of the Air Force S-3 f.). In addition, a certain number of Soviet fighters were shot down by German bombers and in battles with Me-110 attack aircraft. In general, taking into account the minimum 2-fold overestimation of the number of declared victories, the above estimate (30–40 Western Front Air Force fighters shot down in the air) seems quite realistic (if not even overestimated).

The enemy that day irretrievably lost 15 single-engine fighters, another 8 were damaged. The number of damaged vehicles is likely to be significantly underestimated. For example, judging by the entries in the loss log, the JG-53 squadron does not have a single damaged aircraft at all (!!!), but for some reason the number of sorties in this squadron on the second day of the war dropped sharply ... In general, the results of the day are very sad for us, however, given the advantage of the "first strike", which the best aces of the Luftwaffe assembled in the 2nd Air Fleet had on that day, one could not count on more. In any case, the ratio of fighter losses of 1 to 2 or even 1 to 3 still does not give grounds to talk about "beating inadequate amateurs."

In comparison with the initial number of fighter aircraft, three divisions of the first echelon (11th, 9th, 10th SAD) lost about 5-6% of combat vehicles. Pilots in these divisions, as you know, were much smaller than aircraft. On the other hand, the loss of an aircraft does not always lead to the irretrievable loss of a fighter pilot. But even if we assume the worst and almost unbelievable - a pilot died in every downed fighter, then even then the loss of pilots will be less than 9% of the original number (40 out of 460).

And yet - three divisions were utterly defeated and already on the second or third day of the war they disappeared from the reports and operational reports

Soviet headquarters. It remains only to agree with the traditional version of Soviet historiography - the lightning destruction of the first echelon of aviation on the Western Front did not occur in the air, but on the ground.

Chapter 27

FIGHTER "REBASE"

So we have come to the moment when it is time to explain: why the author with such persistence "breaks through the open door", proving something that no one has ever argued with. Yes, indeed, no one denied the fact that the huge losses of aircraft did not occur at all in air battles, but mainly on the ground.

The problem is that behind the words "destroyed at the airfields" there can be a variety of events. For example, enemy bombers fall on a "peacefully sleeping" airfield. This should not have happened in military aviation units, because no military unit ever "sleeps peacefully" - in any unit there is a duty officer, orderly, guard, security, etc. Moreover, there could be nothing like this in fighter regiments of the Air Force of the western border districts, which received on June 18–21, 1941, all the necessary instructions to increase combat readiness, disperse and camouflage aircraft, etc. Moreover, almost all of them were alerted at 2–3 o'clock in the morning on June 22. If in reality everything was not at all the way it should have been, then the reason for the defeat should be recognized not as a "sudden attack by the enemy", but as a chronic criminal negligence of the command.

Another situation - the enemy with huge forces falls on the airfield and, despite the fierce resistance of the military unit based at the airfield, destroys most of the aircraft. This happened extremely rarely in the history of the Second World War, and was accompanied by much greater losses of aircraft and pilots of the attacking side. As for June 22, 1941, the author of this book could not find a single such episode. Perhaps something similar happened at the airfields of the fighter regiments of the 10th SAD (i.e., where the most powerful forces of the Luftwaffe were concentrated in the zone of the main attack of Army Group Center). Perhaps this question still needs to be studied. In all other cases, raids by German aviation were carried out in small groups - from a flight to a squadron (i.e., from 4 to 12 aircraft), and in the presence of organized resistance, they led to minimal, or even just single, losses of the defending side.

The third possible situation is that there are a lot of people at the airport, a lot of planes, a lot of commanders, but there is no military unit, i.e. there are "a lot of people"

does not act as a single unit, sealed by the Charter, order, requirements of the military oath. On the contrary, all orders, instructions and instructions are ignored, the planes are lined up in the middle of the airfield "wing to wing", half of the personnel are "in the city with relatives", the rest, at the very first shots, "start a lorry" and leave. After that, a link of German planes from a strafing flight, slowly and diligently shoots planes abandoned on the airfield. Examples of such (or very close to it) criminal inaction, negligence and actual desertion are found, alas, in a large

quantity.

There is another option "destruction of aircraft on the ground." Namely: a team of the German rear service consisting of one sergeant major and two soldiers arrives at the airfield of the Soviet Air Force captured a few days (or weeks) ago. The sergeant lazily counts the abandoned planes "by tails", after which the soldiers pour gasoline from the tanks onto the ground and flick a lighter ... Can't this be called "destruction on the ground"? Moreover, if the sergeant major was from the ground services of the Luftwaffe (and it most likely was), then these aircraft can rightly be considered "destroyed by German aviation."

It is extremely important to note that it was in this interpretation of the real fact of the destruction of Soviet Air Force aircraft that both warring parties were interested! Of course, it was more profitable for the Germans - from the commander of the air regiment to Dr. Goebbels himself - to talk about the "crushing blow of the Luftwaffe" than about the rear sergeant major. Of course, the commanders of the defeated air regiments of the Western Front, who "relocated" 500 or more kilometers to the rear, did not want to admit at all that they had abandoned tens and hundreds of serviceable combat aircraft on the empty airfields. In a situation where the battlefield was left behind by the enemy and there was no practical opportunity to verify the reliability of their reports and reports from the higher command, the airfield became the most convenient with successive strikes of large enemy aviation formations. Of course, the Soviet "historians", who received their academic titles and positions for depicting "unparalleled in the history of mass heroism", did not check the reliability of such reports ...

wording

"materiel destroyed on

However, in a certain sense, the "historians" were right. Desertion is when without an order. If there was an order, then desertion turns into a completely legal relocation. Was there an order? This is another "mystery of June 41st". In any case, the ubiquity

phenomena suggests that there was some order to withdraw aviation from the combat zone.

Let us turn once again to the monograph "The Combat Operations of the Troops of the 4th Army". In this book, published in 1961 under the heading "secret", Colonel-General L.M. Sandalov (at the beginning of the war - Colonel, Chief of Staff of the 4th Army) writes with epic calmness: "***The commander of the Kobrin air defense brigade district, together with the 218th air defense division subordinate to him and the rest of the units, moved to Pinsk on June 23, and later to the rear. The commander of the 10th SAD with the headquarters and the remnants of the aviation regiments, with the permission***

of the front headquarters, moved on June 22 to Pinsk, and on June 24 to the Gomel region. (34) This is such a strange war. Not only aviation units, but also ground-based air defense are rapidly "relocated to the rear" - and at the very time when German aviation is literally rampant over the battlefield. Gomel is 500 km east of Brest. The Germans occupied the Gomel region only on August 17-19, almost two months after the start of the war. Relocation to Gomel reliably removed the remnants of the 10th SAD "from under attack" and just as guaranteed to deprive the remnants of the 4th Army of any air support. Who, then, was supposed to take this "blow"? Mobilized collective farm men with Mosin's three-ruler? And what is already completely strange, Sandalov claims that these amazing "relocations" were

carried out with the sanction of the command of the Western Front! Whether or not there was in fact an order to relocate is a question for the prosecutor. It is enough for a historian to confine himself to stating the indisputable fact that it was precisely the hasty and disorderly "relocation" that became the main

fighter aircraft of the Western Front. It was no accident that we gave such a detailed account of S. Dolgushin's memoirs in the previous chapter. His story contains almost all the most significant moments of the so-called "relocation" and its inevitable consequences. In half a day, the regiment comes to a state of complete helplessness: there is no ammunition, the tankers are lagging behind, the batteries are dead, the flight crew "***neither arms nor legs work.***" And these are completely natural and, most importantly, quite predictable consequences of "rebasings" in quotation marks. Why? Because if you imagine an aviation military unit in the form of a "pyramid", then the pilots will be a speck of dust at the top of this pyramid.

The regular strength of the aviation division is estimated in thousands of people. All these people are present in the staff of aviation units for good reason. They should refuel, load, mask, repair, guard, notify, provide weather reports and spare parts ... And the pilot

the fighter, after the monstrous physical and psychological stress of air combat, must be fed, watered and put to bed. Carrying buckets (if the tanker is really lost) 300 kg of gasoline to the plane should be others. And this is not a matter of ambition and whims, but the requirement of instructions and elementary common sense. The so-called "relocation" of the flight crew - in isolation from the technical and all other services - will inevitably lead to the loss of its combat capability.

The claw is stuck - the whole bird is abyss. The first phase of "relocation" quickly (in the case of air units of the Air Force of the Western Front - in less than two days) comes the second: the pilots "got into cars and everyone left." Or they left on foot - which, in addition to the loss of expensive aircraft, led to the loss of the most scarce in a war setting

pilots...

In almost the same way and with the same consequences, the "relocation" took place in the Air Force units of the North-Western Front. The surviving documents of the front command testify that it not only did not lead the process, but also hardly imagined the scale of the "relocation" that began spontaneously. If the reader still remembers, the first summary of the S-3 headquarters f. dated 22.00 on June 22 estimated the losses of the front aviation as 56 destroyed and 32 damaged aircraft. The next day, at 22.00 on June 23, Operational Report No. 03 called the following figures for the losses of the front's aviation: " **aircraft destroyed - 14, of which 8 in Mitava, damaged - 15.**" (9, p. 57) It would seem that the losses are minimal. But after a few days, the front command states that it no longer has aviation: "**The air forces of the front suffered heavy losses ... At this time, they are not capable of effectively supporting, covering ground troops and attacking the enemy. Crews saved 75%. Losses of the material part 80%**" (highlighted by me. - **M.S.**). It is not even clear when this report was sent: at the beginning, the time of dispatch is indicated (20:35 on June 26), but at the end of the text there is the phrase: "I ask you to transfer it **to my disposal on June 26, 1941 ...**" (9, p. 68) An even more ugly picture is drawn by the documents of the "special departments". So, in the report of the deputy head of the 3rd Directorate of the People's Commissariat of Defense F. Tutushkin dated July 8, 1941, we

read : **as a result, 150 vehicles accumulated at some airfields ... The crews, left without materiel, were idle and are only now heading for materiel, which arrives extremely slowly ... "**

A week later, a special report of the 3rd Directorate of the NPO No. 37738 dated July 14 states:

... The remaining minimum number of fighter aircraft of the Air Force of the North-Western Front is inactive due to the lack of compressed air to start the engines. Bombers sent to destroy enemy manpower without fighter cover suffer heavy losses both in materiel and flight personnel.

The evacuation of bases and units from the front lines is unorganized, the command itself shows panic, which causes a large loss of ammunition and other types of technical supplies ... July 6 of this year. The 25th air base of the 8th air division was relocated from the town of Karamyshev; 4 platforms were submitted for the transportation of goods, however, Colonel Sh. ordered the stock of bombs and fuel to be blown up, the existing 9 aircraft to be destroyed, and ShKAS machine guns to be thrown into the wells. Which was done, and platforms and vehicles were used to transport personal items of command (motorcycles, bicycles, padded cars) ...

The 13th, 127th and 206th air bases, during a stampede, left most of the supplies on the territory occupied by the enemy, without destroying combat equipment. The commander of the 127th air base at the Grudzhai site left the enemy 5,144 air bombs (of various brands), 442,500 rifle and aircraft cartridges, and 10 ShKAS machine guns. food, clothing and

technical warehouses...

The Air Force of the front, having lost its bases, is content with the supply of ammunition, fuel and vehicles from the warehouses of the Leningrad Military District, the stocks of which, being not designed to support two fronts, cannot fully satisfy the requests of the Air Force of the North-Western Front ...

(151)

Earlier, at the beginning of Chapter 24, we formulated the question: how can one explain the huge difference in the number of aircraft lost at airfields in different units and formations of the Red Army Air Force. Now we can already give an answer. The answer is extremely simple. Since the main reason for the loss of aircraft at airfields was the panic "relocation", then

the number of aircraft lost (that is, abandoned on empty airfields) directly depended on the pace of the Wehrmacht offensive in various sectors of the Soviet-German front. Moreover - and this is very important to note - the dependence between the rate of withdrawal of the ground units of the Red Army and the "relocation" of aviation was mutual.

Bridges, roads, crossings, warehouses, command posts, communication centers must be covered from the air during any meaningful action - be it an offensive, defense, retreat. Nevertheless, it is precisely in the conditions of a large-scale retreat, when a huge mass of troops leaves the trenches and shelters and turns into huge, many-kilometer-long "ribbons" of marching columns, that gaining and maintaining air supremacy becomes the most important task. Without its decision, marching columns will turn into a target for shooting by enemy aircraft, and the retreat will inevitably turn into a stampede. In the armies of the 20th century, aviation performs (should perform) the function of the rearguard of the retreat - it must be the last to leave the battlefield. In June 1941, everything was done exactly the opposite, and the German aviation, rampant in the sky with impunity, became (which is confirmed by thousands of testimonies) the most important tool for demoralizing the Red Army. On the other hand, the erratic withdrawal of ground units often pushed air commanders to make a decision on an urgent "relocation" ...

In the zone of the Southern Front, the pace of enemy advance in June 41 was zero (the full-scale offensive of the Romanian and German troops began there only on July 2), respectively, there was simply no "relocation" of the Air Force of the Southern Front in June 1941 - as a result, the loss of aviation turned out to be minimal. Fighter regiments of the Air Force of the front irrevocably lost no more than 1-3 aircraft each on the first day of the war. Just as modest were the achievements of the "all-destroying German aviation" in the following days. As a result, as of July 10, the Air Force of the peripheral Southern Front outnumbered the other three fronts in terms of the number of fighters (537 units) combined! (23) The fate of the 69th IAP stationed in the Odessa region is noteworthy. This regiment, under the command of the outstanding Soviet pilot and commander L.L. Shestakova, without relocating anywhere, fought for 115 days in the sky over Chisinau and Odessa. He fought on those very "hopelessly outdated" I-16 fighters, with which he entered the war. In air battles, the pilots of the 69th IAP shot down (more precisely, declared) 94 German and Romanian aircraft during this period.

In the first weeks of the war, the aviation of the Leningrad District, the Baltic and Northern Fleets did not relocate anywhere. As a result

the effectiveness of German air strikes against Soviet Air Force airfields turned out to be normal in this sector, that is, very, very low.

The example of the 13th IAP is extremely indicative. Two squadrons of this fighter regiment from the Baltic Fleet Air Force were based ... in Finland, on the Hanko Peninsula (after the first Soviet-Finnish war, a Soviet naval and air base was created there). After the start of the second Finnish war (June 25, 1941), the airfield was in the zone of action not only of aviation, but also of Finnish artillery, and was constantly fired upon. According to the "logic" with which we usually describe the defeat of the aviation of the Western Front, the 13th IAP was supposed to be destroyed in a few hours. Like, for example, the 74th ShAP from Belov's division. In fact, the 13th IAP fought on Hanko until the late autumn of 1941. In March 1942, this regiment, as one of the best in the Soviet Air Force, was renamed the 4th Guards. For more than a year and a half (until January 1943), the regiment fought quite successfully on fairly worn donkeys. Moreover, how it fought - in just one month, from March 12 to April 13, 1942, the 4th GIAP announced the destruction of 54 German aircraft, while losing only two I-16s. (25, 32) Not as fast as the German command would have

liked, the troops of the Army Group "South" advanced deep into Ukraine. As a result, the "miraculous remedy" (strike on airfields) worked there with big misfires - as noted above, the aviation of the Southwestern Front lost "only" one-fifth of the original number of its aircraft on the ground in the first week of fighting. The connection between the actions (withdrawal) of ground forces and the dynamics of aviation losses in different sectors of the Southwestern Front is also quite clearly visible. By the end of June, the aviation divisions of the right (northern) flank of the front (14th SAD, 15th SAD, 16th SAD) "disappear" from reports on hostilities and destroyed enemy aircraft; then, in the first half of July, a wave of retreat of the southern flank of the front sweeps away the 63rd SAD, 64th IAD, and 44th IAD that survived in June.

The situation was worst in Western Belarus and the Baltic states, where in the first days of the war the Wehrmacht's tank divisions advanced at a rate of 50-60 km per day - it was there that the "relocation" of Soviet aviation took place with the greatest scope and the most serious consequences. And the farther away from the day and hour of the "surprise attack", the greater the "losses" become, that is, the number of aircraft found by the Germans on the deserted airfields of the Western and Northwestern fronts.

At 13:30 on June 22, 1941, Colonel-General Halder, Chief of the General Staff of the German Land Forces, records in his

diary: **"Our air force destroyed 800 enemy aircraft."** By the end of the day, these figures hardly change: **"The Luftwaffe command reported that 850 enemy aircraft have been destroyed today."** But three days later, on the evening of June 24, Halder writes in his diary: **"The enemy aircraft, which suffered very heavy losses (approximately 2,000 aircraft), completely relocated to the rear."** (12) And this is just the beginning of the process. A few

days later, the number of Soviet aircraft destroyed on June 22, 1941 is estimated by the Germans at 1811 (instead of 850), and 1489 of them are considered "destroyed on the ground." The achievements of the 2nd Air Force of the Luftwaffe grow five times by June 28 (1570 against 300 in the reports of the first day). The losses of aviation of the North-Western Front during the first three days of the war "grow" in German reports by 15 times (1500 against 100), and 1100 of them are considered "destroyed on the ground." However, what do you want from the enemy's official (largely propaganda) reports, if such a wild-sounding term in the military lexicon as "unaccounted for loss" appeared in the documents of the Soviet Air Force. According to a report signed by the head of the operational department of the headquarters of the Red Army Air Force, Lieutenant General Zhuravlev on August 1, 1941, this "unaccounted for" amounted to 5240 aircraft! (175) In hindsight, the huge mass of abandoned equipment was written off as the consequences of a "sudden strike on airfields". What no one began to argue with - neither German pilots (which is understandable), nor Soviet "historians" (which is even clearer) ...

Chapter

28 Air Supremacy

In June 1941, the war did not end. On the contrary, it has only just begun. No matter how heavy the losses of the first days were, Soviet aviation did not disappear from the sky of the war. Moreover, she still greatly outnumbered her opponent (see Appendix 4). There is nothing to be surprised here. Firstly, the Soviet

aviation on the flanks of the war did not suffer any significant losses (the air forces of the Odessa and Leningrad districts, the air forces of the Black Sea and Baltic fleets). Despite heavy losses, the initially huge air force grouping of the Southwestern Front (Kyiv District) still outnumbered the enemy many times over. Despite heavy losses in the air, long-range bomber aviation retained most of the aircraft and crews ("airfield losses" in it were practically zero). Secondly, the Soviet Union - unlike Germany - fought on one front (Japan, being theoretically an ally of Hitler, did not take a

single step to the Soviet borders, which allowed the Red Army command to transfer significant forces from the Far East to the West). For 9 days of June, four air divisions (three mixed and one fighter) were transferred to the front. In total, from June 22 to August 1, 1941, 15 air divisions from the internal military districts, from the Transcaucasus and the Far East were transferred to the Air Force of the active fronts. (3, 27, 30) 15 air divisions - this is at least 3 thousand aircraft and crews, i.e., a grouping that significantly outnumbers all Luftwaffe formations on the Eastern Front.

Last and most importantly, even in the zone of the Western and Northwestern fronts, a crushing blow to airfields (and an even more crushing "relocation") only led to a huge loss of aircraft - but not pilots. The main component of military aviation - trained and trained flight crews - was preserved. An attentive reader should have noticed in the previous chapter two figures underlined in the text (***"75% of crews saved, 80% of materiel lost"***). As for the "materiel losses", they were replenished quite quickly. Thus, the Air Force of the Western Front received 709 aircraft between June 25 and July 16. (23) This figure is little known even to specialists, so we will also indicate the exact archival reference: TsAMO,

f.35, op.3802, d.19, l. 70–76. In other words, the losses of the Air Force of the Western Front from the “sudden strike on airfields” (based on the generally accepted figures of 550-600 aircraft) were completely replenished after 20 days and even blocked (!) by deliveries of new equipment.

Further more. With the outbreak of hostilities, the aircraft factories of the Soviet Union switched from the pre-war forced to the military super-forced mode of operation. At the same time, the vast expanses of the country better and more reliably than any air defense protected the Soviet aviation and aircraft engine industry from air strikes. In the second half of 1941, the volume of aircraft production not only did not decrease, but even increased - despite all the chaos of the retreat, the collapse of the transport system and the evacuation of a number of important factories that had begun. Already in July-September 1941, the aviation industry plants gave the front 4517 combat aircraft. (3) In total, in the second half of 1941, 8444 combat aircraft were produced, including 5229 fighters (2211 MiG-3, 2141 LaGG-3, 877 Yak-1). In parentheses, we note that Germany, for which "all of Europe worked", for the whole of 1941, for both of its half-years, produced only 2850 fighters. Of course, all the above figures cannot be considered absolutely accurate, in different sources they are given with a spread of 10–15%, and some time passes between the acceptance of the aircraft by the military representative and its actual transfer to the combat unit, which further increases the discrepancy in the figures. In any case, the “excessive” losses of the first weeks of the war were replenished by the autumn of 1941.

As for Germany, in 1941 its aviation industry could not provide a simple replacement for losses. Allies capable of supplying hundreds of combat aircraft, and then thousands, Hitler did not find. As a result, never again did the Luftwaffe grouping on the Eastern Front have as many aircraft as it had on June 22, 1941. By the beginning of September 41, as part of three air fleets (1st, 2nd and 4th), there were only 1005 vehicles in service (less than half of the total strength of the group on June 22). Yes, not every day the situation was so bleak for the Luftwaffe command as in early September, after fierce summer battles, but the average figures also indicate an increase in losses not replenished by the supply of new equipment. Thus, the average monthly number of fighters decreased in the autumn of 1941 from the initial 850 to 650-700; the average monthly number of twin-engine (bombers) decreased by the winter of 1941 from 900 to 750 units.

In the summer of 1941, Germany and its Air Force fought on numerous fronts from the English Channel to the Dnieper, from North Africa to North

Norway. Another "front" was sea communications, the struggle on which required the presence of large aviation forces in the sky over the Atlantic. In such a situation, the Luftwaffe command not only did not have the opportunity to increase the composition of its grouping in the East, but even found itself forced to transfer fighter groups from the Eastern to the Mediterranean front. By December 1941, 6 of the 22 Luftwaffe fighter groups that were in the East on June 22 were already fighting in the skies over Malta and North Africa (II, III / JG 27, I, II, III / JG 53, II / JG 3)

The numerical superiority continued to remain with the Soviet side. Alas, it did not at all turn into air supremacy of the Soviet Air Force. A detailed and reliable "debriefing" will require the writing of several more equally thick books. Nevertheless, some idea of the "efficiency" of the available forces of the Soviet fighter aviation can be obtained by comparison. Comparison of the losses suffered by German aviation during the May (1940) battles in the skies of France, with the losses of the Luftwaffe on the Eastern Front in the summer of 1941

of the year.

As noted above, the first day of the "triumphal march" (May 10, 1940) was the day of the largest losses of the Luftwaffe during the Second World War - 304 aircraft were irretrievably lost, the loss of flight crews amounted to 607 people killed and missing, 133 wounded. True, this huge figure also included 157 transport Junkers, shot down and crashed on the first day of the war during the airborne assault in Holland. For the purposes of our study, it will be correct to take into account the losses of "combat aircraft" in the narrowest sense of the term, that is, only bombers and fighters of all types. These losses on May 10, 1940 amounted to 111 vehicles (7 fighters, 9 dive bombers, 95 twin-engine bombers). (21) Irretrievable losses of Luftwaffe combat aircraft on June 22, 1941 amounted to 62 units (see Appendix 6). In total, during the campaign in the West (May 10 - June 24, 1940), 976 combat aircraft were irretrievably lost, including 250 single-engine fighters. For a comparable period of time (from June 22 to

July 31, 1941), the irretrievable losses of German aviation on the Eastern Front amounted to 583 combat aircraft, including 189 single-engine fighters. During the first three weeks of the war on the Western Front (from May 10 to May 31, 1940), the irretrievable losses of Luftwaffe combat aircraft amounted to 642

cars. The author does not have data for the same period of time. If we arithmetically add up the losses of June and half of the losses of July, it turns out that on the Eastern Front the Germans irretrievably lost 398 combat aircraft. As you

can see, the losses of the Luftwaffe on the Western Front in any of the considered time intervals were higher than on the Eastern. We note right away that in relation to the Eastern Front, we did not take into account the non-combat losses of Luftwaffe aircraft (accidents and catastrophes), which in the summer of 1941 made up a very significant (15-25%) share of losses. But even with this reservation, the picture does not change qualitatively - the losses on the Western Front were higher, only not by 1.6 times, but somewhere around 1.35. In other words, French and British fighters (650-700 pilots in total) inflicted more losses on the enemy than 3.5 thousand "Stalin's falcons". And this despite the fact that the tactical and technical characteristics of the Allied fighters were no better than those of the aircraft of the Soviet Air Force (this was discussed a lot and in detail above). There is no need to talk about the presence of serious combat experience among French or British pilots, while a significant part of Soviet fighters by June 1941 had already gone through the "school" of fighting in Spain, China, Khalkhin Gol and Finland.

By the way, about Finland. The results of the air battles between the Soviet and Finnish Air Forces deserve at least a brief mention. Starting from June 25 and until the end of the year (actually, the active phase of hostilities ended in the measured numbers of December), Finnish fighters announced 307 downed Soviet aircraft. These are claimed victories. What happened in reality? The works of Russian historians will not help us much in answering this question, since Soviet historiography did not know and did not recognize any "2nd Soviet-Finnish war". There was "Finland's participation in Hitler's aggression against the USSR", respectively, and a separate account of losses on the Finnish front was never kept. The classic collection "Secrecy Removed" ed. Krivosheeva (35) gives a certain number of losses (64 aircraft) in the "defensive operation in Karelia"), however, the chronological scope of this operation is limited to October 10, 1941, and this "operation" does not include the fighting on August 41st on the Karelian Isthmus (that Soviet historiography has always "dissolved" in the general context of the "Leningrad defensive operation").

On the other hand, it is known for certain that Finnish fighters were distinguished by their increased modesty in applications for air victories. So, at the very beginning of the war, from June 25 to June 30, 1941, they reported on 34 downed Soviet bombers - while archival documents

Soviet air units testify to the loss of 22 bombers (not counting mid-air collisions and shelling by their own fighters) during June 25–26. (142) During the summer battles of 1944, Finnish fighters and a German fighter group (actually two Staffels) claimed 566 downed Soviet aircraft. (176, p. 355) At the same time, Krivosheev's reference book admits the loss of 311 Soviet aircraft - again, over a shorter period of time.

Assuming an overestimation factor of about 2–3 times, which is quite realistic in this case, we come to the conclusion that Finnish fighters shot down at least 100–150 Soviet aircraft. At the same time, they themselves lost only 11 fighter aircraft. The ratio of the number of losses is at least 1 to 10. Particularly impressive are the results of the combat work of the LLv-24 fighter groups (133 downed Soviet aircraft were declared, their own irretrievable losses - one Brewster shot down by anti-aircraft fire) and LLv-26 (52 victories were declared, their own irretrievable losses - zero). (176, p. 269) It remains only to add to these figures that not a single Messerschmitt was in service with the Finnish Air Force in 1941 at all, and phenomenal success was achieved on a collection of fairly worn out assorted aircraft (moreover, in the specific conditions of the 41st year the possibility of obtaining spare parts and repair kits for aircraft of American, French and Dutch production was practically excluded). We also note that the Finnish pilots had no "experience of many years of war in the air", and both warring parties gained real combat experience by fighting each other ... Let us return, however, to the events on the main, German front of the war. Here we are waiting for no less

amazing facts: the losses of German aviation in the first days and weeks of the war, at the very time when - according to the traditional version of Soviet historiography - the Luftwaffe "captured absolute air supremacy", were significantly ... higher than in the following months! We emphasize once again that we are talking about the irretrievable losses of combat aircraft "from enemy influence and for unknown reasons." This approach to accounting for losses significantly "reduces the numbers" (the consequences of accidents and disasters are not included, numerous cases of combat and non-combat damage leading to temporary malfunction of aircraft are not taken into account), but to take into account the activity and effectiveness of enemy counteraction (i.e., the Soviet Air Force) it seems to be the most appropriate.

So, on June 22, 1941, the Luftwaffe lost (in the above sense of the word "loss") 62 aircraft. 62 planes in one day. In total, 213 aircraft were lost during the period from 22 to 30 June inclusive, i.e. 24 aircraft per day. For the whole of July 41, 370 aircraft were lost, i.e. 12

aircraft per day. The average monthly losses in July were half that of June. Further - less. In August, 198 aircraft were lost, that is, less than 7 aircraft per day. The total result of German losses on the Eastern Front in 1941 was as follows: (145, 146)

- 382 fighters (including 32 on the ground); - 638 bombers;
- 161 Ju-87 dive bombers;
- 132 multi-purpose "Me-110"; - a total of 1313 combat aircraft, including 62 aircraft destroyed

enemy at the airfield.

As you can see, the average daily losses were at the level of 7 aircraft per day, that is, 3.5 times lower than in June 1941. Yes, in that same "black June" of 1941 ("Soviet aviation destroyed at airfields", "endless rows of crows with spider swastikas" and so on ...). It is worth noting the indisputable fact that the re-equipment of Soviet fighter aviation with aircraft of "new types" took place in the second half of 1941 at

breakneck speed. For the simplest reason - most of the fleet of I-16 and I-153 fighters accumulated in the prewar years (about 1.5 thousand) was lost at the airfields of the Baltic states, Belarus and Western Ukraine in the first two weeks of the war. "Donkeys" and "seagulls" survived only on the flanks of a huge front (in the air forces of the Leningrad and Odessa districts and as part of the air force fleets). The structure of losses of Soviet fighter planes (see Appendix 10) clearly shows that, minus the losses of the first weeks of the war, the main share of losses (and, consequently, combat activity) falls on "new types" fighters. However, no increase in losses to the enemy, which was now opposed not by "donkeys", but by "MiGs", was observed. The reason why German aviation suffered significant losses in the first days and weeks of the war is simple and obvious. The Soviet Union was preparing for war, preparing for many years, with the maximum exertion of the forces of a huge country, bridled by the most cruel totalitarian regime. A serious result was achieved - weighty, rough, visible. German aviation could not help but crash, flying into the "wall" of hundreds of air regiments and many thousands of aircraft. It was enough for each of the 340 fighter squadrons of the Soviet Air Force deployed to the western theater of war to shoot down three

German aircraft - and the total amount of irretrievable losses of the Luftwaffe would have been almost half of the initial number of combat aircraft. But besides the fighters,

there were also aerial arrows of bombers. They also shot down enemy aircraft, and shot down quite actively. A typical example: among all the regiments of the Air Force of the Southwestern Front, in fourth place in terms of the number of downed enemy aircraft was not one of the fighter, but the 94th bomber (!!!) air regiment (the air gunners of the "SB" bombers of this regiment announced 23 German aircraft shot down by July 10, 1941). (161) The first two weeks of the war were the only period in which the weekly deadweight

losses of Luftwaffe aircraft on the Eastern Front were in the triple digits. In the future, total losses (from all causes) will stabilize at the level of 50-60 downed and 30-40 damaged aircraft per week. Yes, against the background of astronomical numbers of lost (in every sense of the word) aircraft of the Soviet Air Force, enemy losses will seem miserable. But this is a deceptive appearance. By the beginning of September 1941, the total number of irretrievable losses (1350 aircraft according to the most minimal estimates) exceeded half of the initial strength of the grouping. By the beginning of December 1941, the total irretrievable losses (including non-combat) amounted to 2090 aircraft, i.e., almost equal to the original number. (166)

The reality of the heavy losses of the Luftwaffe is also confirmed by the data on the losses of individual units and formations. So, in June 41, the KG-51 bomber squadron irretrievably lost 30 Junkers of the latest modification Ju-88 A4. By the end of July, the elite fighter squadron of Mölders (JG-51) irretrievably lost 40 aircraft in air battles, that is, one third of the original number. On August 30, 1941, one serviceable Messerschmitt remained in service in the III / JG3 fighter group. By September 2, repair teams repaired 10 damaged vehicles, and in this composition, the III / JG3 group, under the command of one of the best aces of the Luftwaffe V. Oesau, covered the visit of Hitler and Mussolini to Uman. There was no easy walk - neither the Wehrmacht nor the Luftwaffe. In the sky of the war there was a fierce struggle, during which the Germans suffered very, very tangible losses.

On the other hand, Soviet aviation suffered disproportionately large, gigantic losses. Even without taking into account the strange "losses at the airfields", the combat losses of Soviet aviation were many times higher than the losses of the enemy (hereinafter, all figures are given according to the collection "WWII Air Force in Figures").

Thus, fighter aircraft lost 1380 aircraft shot down in air battles, and 350 - shot down by anti-aircraft artillery fire. Total: 1730 fighters, irretrievably lost "from the influence of the enemy." This

already five times more enemy fighter losses in the air (see above). However, these two categories (shot down in air combat, shot down by anti-aircraft guns) did not exhaust the combat losses of the Soviet Air Force. Another 1,400 fighter aircraft are listed under the column "did not return from a combat mission." Taking into account these aircraft, the ratio of combat losses of Soviet and German fighters reaches 9 to 1. We remind you once again that these are losses in the air, without taking into account

the losses of aircraft at airfields! The losses are huge. Achievements (in comparison with losses) are more than modest. There is hardly another such aspect in the entire history of the war in which the assessments of the participants in the events from the Soviet and German sides coincide as much as the assessments of the "effectiveness of actions" of Soviet fighter aviation in 1941 coincide. The phrase - "German aviation bombs with impunity, our fighters are not visible" - is repeated a thousand times in reports, reports, and operational reports. When the commanders of the Red Army write this, one can still assume. deliberate "exaggeration", the desire to find "good reasons" for the defeat of the units entrusted to them. But after all, the German pilots and their commanders write literally the same thing. What reason does it have for them to underestimate the resistance of the enemy

they have defeated? Luftwaffe General W. Schwabedissen (commander of the anti-aircraft artillery corps at the beginning of the war) wrote a book based on the reports of the command and the memoirs of Luftwaffe officers, devoted to the analysis of the actions of Soviet aviation in 1941-1945. (19) There, in particular, such evidence of direct participants in the events is given:

... in 60 sorties until September 9, 1941, our unit met with Soviet fighters only 10 times ... when Soviet pilots tried to attack, they opened fire from another 500 meters and tried to dive away as soon as the bomber opened fire back

**(Major Cossart,
Squadrons)**

commander bomber

... several times I myself almost ran into Russian fighters, flying through their system, and they did not even open
fire

**(lieutenant colonel X. Reisen, commander of the II /
KG-30 bomber group)**

... until the fall of 1941, we either did not encounter Soviet fighters, or they simply did not attack us

(Major J. Jodike, bomber squadron commander)

... from June 22 to August 10, 1941, I made about 100 sorties and only 5 times met with Soviet fighters, but in none of these cases did a serious battle occur

(Captain Pabst, commander of the dive squadron)

... until the end of 1941, I flew 21 times for strategic reconnaissance in the deep rear of the Russians and only once met Soviet fighters

(Major Schlage)

Schwabedissen formulates his own conclusion as follows: **"All reports from the commanders of German bomber units indicate that in 1941 Soviet fighters did not pose a threat to German bombers and often avoided combat with them."** He also quotes a certain report from the command of the JG-54 fighter squadron, which stated:

Fights between fighters were rare... Russian pilots tried to avoid the fight and leave immediately ...

The very first downed aircraft led to confusion. In such cases, most Soviet pilots were helpless in air combat, and German pilots easily shot them down ...

One should not think that the "beaten Hitler generals" simply conspired to denigrate everything Soviet. Not at all. The Soviet anti-aircraft artillery made a strong impression on them, and they do not hide it. V. Schwabedissen writes in his study: **"The anti-aircraft gunners quickly recovered from the first shock and turned into a very strong enemy ... The German commanders were surprised by the effectiveness of enemy anti-aircraft artillery ..."** Major Cossart, mentioned above, admits that **"anti-aircraft units acted very successfully against formations of German aircraft ... Usually, the very first volleys of heavy anti-aircraft guns fell to the desired height, often the very first shells exploded in the center of the formation of German aircraft ... The causes of the death of German aircraft were primarily fire**

anti-aircraft artillery, then - the fire of infantry weapons, and only in the last turn - fighter attacks ... " (19, pp. 49-50)

Of course, the last remark (about the low efficiency of Soviet fighters) reflects only the personal experience of one of the Luftwaffe commanders. And although many other similar statements can be found, we will no longer quote the memoirs of the enemy, but will quote in full - without abbreviations and additions - one order of the Supreme Commander of the Red Army. At one time, this order was ordered to be brought to the attention of all pilots against receipt. I think that everyone who is interested in the history of that war should familiarize himself with it:

<i>Order No. 0685</i>

September 9, 1942, Moscow

Establishing the concept of a sortie for fighters Facts on the

Kalinin, Western, Stalingrad, Southeastern and other fronts have established that our fighter aviation, as a rule, operates very poorly and very often does not fulfill its combat missions . Our fighters not only do not engage in combat with enemy fighters, but avoid attacking bombers. When carrying out the task of covering attack aircraft and bombers, our fighters, even with a quantitative superiority over enemy fighters, evade combat, walk to the side and allow our attack aircraft and bombers to be shot down with impunity. By order of the People's Commissar of Defense No. 0299, monetary rewards and government awards for combat sorties with the performance of a combat mission are provided for flight personnel

as an incentive. This order in the aviation units is perverted at the fronts. Any flight on the battlefield is incorrectly considered a sortie, regardless of whether or not the fighters have completed the combat mission assigned to them. Such an incorrect concept of a sortie does not educate our fighters in the

spirit of an active attack on enemy aircraft and makes it possible for individual dodgers and cowards to receive monetary rewards and government awards on a par with honest and brave

In order to eliminate such injustice and in order to encourage only honest pilots, and to identify dodgers and cowards, expel them from the ranks of our fighters and punish them, I ORDER: the enemy and fought an air

battle with him, and when performing the task of covering attack aircraft and bombers, consider a sortie for fighters only such a sortie in which attack aircraft and bombers, when performing a combat mission, did not have losses from attacks by enemy fighters.

2. To count as downed aircraft for pilots only those enemy aircraft that are confirmed by photographs or ground surveillance reports. 3. From now on, payment for sorties

and submissions to the government award should be made strictly guided by paragraphs 1 and 2 of this order. 4. Fighter pilots who evade combat with an air enemy are brought to justice and

transferred to penal units - to the infantry. 5. Order to announce to all fighters on receipt.

People's Commissar of Defense

I. STALIN

This order appeared, alas, not from scratch. Its release was preceded by the work of a special commission headed by the secretary of the Central Committee, Malenkov (the conclusions of the commission were almost verbatim included in the text of the order). The commission traveled to the Stalingrad front and, in particular, investigated the circumstances of the monstrous German air raid on Stalingrad on August 23, 1942. On that day, German bombers made - practically without any opposition from Soviet aviation - more than a thousand sorties and literally wiped the northern part of the city off the face of the earth. It is believed that in one day up to 60% of the housing stock of Stalingrad was destroyed, at least 40 thousand people died in the flames of fires and under the ruins of buildings. As for the above-

mentioned order of the People's Commissar of Defense "***for No. 0299***", its full title was: "***On the procedure for rewarding the pilots of the Red Army Air Force for good combat work and on measures to combat covert desertion among military pilots.***" Not distracted by

quoting the most detailed "price list" of cash bonuses (very modest, by the way) and awards promised for "good combat work", let's move on to the last section of order No. 0299:

IV. Measures to combat hidden desertion among individual

pilots.

The commanders and commissars of air divisions should carefully investigate all cases of forced landings with retracted landing gear and other flight accidents that disable aircraft materiel.

The culprits who landed with the landing gear retracted or committed other actions that disable the materiel without good reason should be treated as deserters and brought to trial by a military tribunal.

It can be assumed that by the time this order was issued (August 19, 1941), the high command in Moscow had already noticed that the number of disabled aircraft was rapidly overtaking the number of flight crew losses (see Appendix 8). Yes, these are exactly the proportions of losses over a long (many-month and many-year) time interval, when the combat losses of aircraft begin to be added to the wear and tear losses many times greater than them - physical and moral (i.e., obsolete aircraft are written off and replaced with new ones types, which in the era of World War II happened quite quickly). At a "short distance", within the limits of the operation, the losses of aircraft and crews should be quite comparable.

At least that's how it was in the Luftwaffe. From June 22 to June 30, 1941, the Germans irrevocably lost 574 aircrew members on the Eastern Front (not counting ground service personnel and anti-aircraft gunners), which coincides with surprising accuracy with the estimated number of crew members of aircraft shot down in June (see Appendix 6) . Similar proportions of losses are observed on the Western Front. During the May-June 1940 campaign, the Luftwaffe irretrievably lost (killed and missing) 3,022 aircrew members. (165)

The calculation based on the number of crews of irretrievably lost aircraft gives the same 3 thousand people. The French fighter aircraft lost 257 pilots killed and missing, while 250 aircraft were shot down in air battles, 123 were lost in accidents and disasters. (21) Against this background, the situation with the loss of

aircraft and crews in the Soviet Air Force looks at least strange.

However, all these "oddities" pale next to the most surprising - a huge number of aircraft missing ("did not return from a combat mission"). Losses for this category are presented in the following table 28. Table 28

1941 1942

Fighters	1400 / 32	2469 / 64
Bombers	1582 / 39	1049 / 72
Attack aircraft	70	1290 / 77

Note: the first figure is the number of aircraft, the second is the percentage of the total number of combat

losses. The numbers are staggering. In 1942, there were more "missing" aircraft than those shot down in air battles, shot down by anti-aircraft guns, and destroyed by the enemy at airfields, combined. For attack aircraft - three times more. How can this be?

Taking into account the structure of Soviet bomber aviation (two thirds consisted of close-range Pe-2 bombers and only one third of long-range DB-3f bombers, which, moreover, extremely rarely flew deep behind enemy lines), such proportions of losses are inexplicable even for bombers. And even more incredible they seem in relation to the Il-2 attack aircraft. "Ilys" fought directly over the battlefield, performing the tasks of fire support for ground troops. Stormtroopers could storm enemy positions only during the day, only with good visibility; "night attack" was impossible in principle. With rare exceptions, each Il-2 was visible to thousands of eyes, the place and cause of its fall were also visible. Finally, finding out the specific reasons for the loss of a combat aircraft is necessary not at all for the convenience of future historians, but for improving the design, armor protection, defensive weapons, and tactics of use.

No less surprising are the numbers in the line of fighters. Half (47.4%, to be exact) of all sorties by Soviet fighters was a cover for ground troops and rear facilities, that is, what happened in front of tens of thousands of people. 37% of the total number of fighter sorties was escort of their attack aircraft, i.e. the same Pe-2 and Il-2, "working" along the front line. The only situation in which a pair (link) by a fighter could disappear without a trace is "free hunting" in the operational rear of the enemy. For this type of combat activity, Soviet fighters spent only 2.7% of the total number of sorties - approximately this could be the proportion of "missing without

lead" fighters in the total number of losses. In fact, it turned out to be 10–20 times larger. What was

it? The author does not know the answer to this question. In the absence of anything better, I am ready to offer the reader a hypothesis. Namely, the vague wording "did not return from a combat mission" became a euphemism that replaced the euphemism of the 41st year, similar in "reliability", in the reports of the 42nd year ("destroyed by an enemy strike at the home airfield"). With the help of this crafty figure, they "made ends meet" in the reports, masking both the negligence of the command, and the monstrously high accident rate, and what was simply and bluntly called "hidden desertion" in the order signed by Stalin himself. The most convincing argument and benefit of the fact that a huge proportion of "missing" aircraft is not at all an immutable law of war is the dynamics of this parameter (see Appendix 9). If in 1942 the aircraft that "did not return from the mission" accounted for 70% of the total number of combat losses, then in 1944 this figure drops to 25%, and in 1945 to 23%.

Much in understanding the events of the summer of 1941 is clarified if we compare the losses of the Luftwaffe at the beginning of the war on the Eastern Front and in 1944, the year when, according to the generally accepted version of military history, "Soviet aviation won lasting air supremacy." The heaviest for the Germans were the losses of July and August 1944 (two grandiose, one of the most successful, offensive operations of the Red Army unfolded on the ground: Belorussian and Lvov-Sandomierz). The Luftwaffe irretrievably (and from all causes) then lost 647 and 520 aircraft, respectively. And this is the peak level of losses. Comparing it with the indicators of the summer of 1941, we find that the average daily deadweight losses only approached, but never reached the level (24 aircraft per day) of June 1941. In general, for the whole of 1944, the Germans irretrievably lost 13 aircraft per day; And this, mind you, counting non-combat losses, which amounted to at least 20–25% (sometimes much more, up to 40%) of the total number of irretrievable losses. With this important clarification in mind, we come to the most amazing conclusion: the average daily losses of Luftwaffe combat aircraft in 1944 were only slightly higher than the losses in 1941

of the year.

This is a very strange fact. It does not at all fit into the scheme familiar to us from school: at the beginning of the war - complete air supremacy for the Germans, at the end of the war - for the "Red Star Falcons". The reality turned out to be much more complicated. Strictly speaking, no

"air supremacy" - if by these words we mean the immediate destruction of an enemy aircraft that dared to take to the air - was not achieved by either side. The 250,000 sorties that Soviet aviation was able to make in the first three months of the war, the serious numbers of combat losses of German aircraft - all this is absolutely incompatible with the traditional thesis of "unlimited air supremacy" of German aviation. In the summer and autumn of 1941, two opposing forces were present in the sky of the war. Yes, one of them acted much more effectively, the other could not even realize its numerical superiority, but neither side achieved decisive success.

Could not win "air supremacy" (in the above sense of the term) and Soviet aviation. Including - and at the final stage of the war. Even when the numerical superiority of Soviet fighters began to be expressed in double digits (which was mainly due to the efforts of the Allied bomber aircraft, the systematic raids of which forced the Luftwaffe command to transfer the greater and better part of fighter aircraft to the German air defense system).

Let us turn once again to the tedious statistics. In 1944, Luftwaffe fighters made 69,775 sorties on the Eastern Front. Irrecoverable combat losses - 839 aircraft, i.e. one downed fighter for 83 sorties. Bombers and attack aircraft completed 226,502 sorties. Irrecoverable combat losses - 1342 aircraft, i.e. one shot down for 169 sorties. (131) Even with all the reservations about the inevitable inaccuracy of these data, even when reduced by two, three times, the figures for the number of German aircraft sorties per one loss give an extremely clear picture. What kind of "air supremacy" can we talk about in a situation where an enemy aircraft was allowed dozens (or even hundreds!) of times to take to the air and attack Soviet troops?

The irretrievable losses of Soviet fighters in 1944 are almost 4 times the losses of German fighters, the losses of bombers and attack aircraft are 3 times the losses of the enemy (see Appendix 9). Luftwaffe fighters, whose average number in the sky over the Eastern Front did not exceed 500 units, shot down at least 2900 Soviet aircraft. If we add to this number at least half of those who "did not return from the mission", then the total number of real (and not declared!) victories of German fighters reaches 3800. Even if we assume that every single combat loss of German aircraft is associated with the actions of Soviet fighters, then even with this obviously ridiculous assumption, it turns out that Soviet fighters shot down about 2200 enemy aircraft - half as much as their German opponents. And this is in the context of a huge

numerical superiority. What kind of "air supremacy" can we talk about here?
As a

concrete illustration of what has been said, we will give an example of one operation at the end of 1944. According to all the rules of science, it is called the "Petsamo-Kirkenes strategic offensive operation." We are talking about the fighting in the Arctic in the late autumn (from October 7 to October 29), 1944. Of the many others, we chose this particular operation because it took place on an isolated sector of the front, in a very short time, due to which it becomes possible to correctly account for the size of the grouping and the losses of the parties. From

the Soviet side, the 7th Air Army (747 combat aircraft, including 308 fighters), as well as the Air Force of the Northern Fleet - 275 aircraft, including 160 fighters, took direct part in the operation from the Soviet side. A total of 1022 combat aircraft, including 468 fighters. The grouping of the 5th Air Force of the Luftwaffe, opposing the Soviet Air Force in the Far North, had at that time 169 combat aircraft, including 66 fighters in two air groups (III/JG-5 and IV/JG-5). With such a balance of forces, the Soviet Air Force lost 142 aircraft, the enemy - 63 aircraft. (137) The most important result of the operation was that both of the Luftwaffe fighter groups mentioned above were able to retain most of the personnel and relocate in an organized manner to the airfields of the western coast of Norway ... Almost the entire chapter turned out to be occupied with a discussion of the effectiveness

(more precisely, the search for reasons for inefficiency) of actions Soviet fighter aviation. But this does not mean at all that the Soviet bombers acted better. Nothing of the kind - just the volume of the chapter and the book is not infinite, and it is more difficult to find simple and specific indicators in evaluating the effectiveness of bomber aviation. Nevertheless, some episodes can and should be noted. Chronologically, the first serious defeat was an unsuccessful attempt to destroy the oil fields of Romania. Having a large

aviation group on the Black Sea theater of operations (Air Force of the Odessa District, Air Force of the Black Sea Fleet, 4th Corps of the DBA), having Crimea as an "unsinkable aircraft carrier", the Soviet Air Force inflicted only a few "pin pricks" on Constanta and Ploiesti. A single Luftwaffe fighter group was enough to force the Soviet command to abandon massive raids, from targeted bombing during the day, and then completely stop the operation, which - if the necessary forces were involved, carefully organized,

determination and perseverance - could put Hitler's Germany before a crisis of a strategic scale. It is impossible not to mention

the story of the first bombing strike of the Soviet DBA on Berlin. In the summer of 1941, the top military-political leadership of the USSR decided to present to the world material evidence of the existence of Soviet long-range aviation, about which so much was written and sung in the pre-war years. In pursuance of this task, under the personal leadership of the Commander-in-Chief of the Air Force Zhigarev, preparations began for a raid on Berlin. The 81st Special Purpose Air Division was formed, which received the latest aircraft: the long-range twin-engine Yer-2 and the four-engine giant TB-7. It was decided to make the first raid on the evening of August 10 from one of the Leningrad airfields.

Further events developed as follows. Of the 32 Yer-2 aircraft, only 5 aircraft were involved in the first strike. Thus, from the very beginning, not a massive strike, but a "mosquito bite" was planned. Of the five aircraft, two crashed on takeoff, three took to the air, where they were attacked by Baltic Fleet Air Force fighters and fired upon by our anti-aircraft guns. It is believed that all of them nevertheless flew to Berlin and dropped several bombs on it in pitch darkness. On the way back, one bomber went missing, the second was attacked and this time shot down by Soviet non-fighters. Only one Yer-2 returned to the airfield.

The fate of the eight heavy TB-7s that took part in the same raid was as follows: one crashed on takeoff due to a failure of two engines, another was shot down by our anti-aircraft guns while climbing, six possibly flew to Berlin: returned to base only one, the remaining five crashed, presumably due to engine failures. The delight of Soviet historians in describing this event knows no bounds: ***"These strikes shocked the fascist leadership, the population of Germany and the troops at the front ... the chilling whistle of bombs and the randomly rushing beams of anti-aircraft searchlights caused a panic that seized the inhabitants of Berlin ..."*** *Who knows, maybe* so everything was - although it would be more plausible to assume that the inhabitants of Berlin, who by that time had already gained experience in repelling massive British bombardments, simply did not notice this mighty blow. In any case, he did not "shake the Nazi leadership" in the way that, for example, the Allied air strike on February 3, 1945, when more than a thousand "flying fortresses" dropped 2250 tons of bombs on the German capital.

Of course, such criminal negligence and disorganization, which were (in the presence of the Air Force Commander-in-Chief) shown on August 10, did not happen

Always. At the very least, but from August 8 (the day of the first raid on Berlin by bombers from the 1st MTAP of the Baltic Fleet Air Force) to September 5, 311 bombs with a total weight of 36 tons were dropped on the capital of the Reich. They did not add fun to the inhabitants of Berlin. The most powerful (without any quotes) for all the years of the war, Soviet bomber aircraft struck not at Berlin and not at the Romanian oil fields, but at much closer Helsinki.

The first raid took place on the night of February 6-7, 1944, 728 aircraft dropped 6991 bombs on Helsinki with a total weight of 924 tons. Among other things, two FAB-5000s were dropped (one such bomb could demolish an entire block), six FAB-2000s and four FAB-1000s. In the

second raid, which took place on the night of February 16-17, 1944, "only" 408 (according to other sources - 497) aircraft took part, which dropped 4317 bombs on the city. The most powerful was the third and last raid (on the night of February 26-27), in which 929 bombers took part. 5182 bombs were dropped with a total weight of 1010 tons. A characteristic feature of this raid was the massive use of heavy and super-heavy bombs: 20 FAB-2000, 621 FAB-500, 1431 FAB-250. According to the calculations of the organizers of the operation (and according to all the reports of the crews and the command of the bomber formations), only a pile of smoking ruins remained from the capital of Finland (and the city had a very large proportion of wooden buildings). In September 1944 (after the signing of

the Armistice Agreement), representatives of the Soviet military command arrived in Helsinki, where, to their extreme amazement, they found a city full of life with minimal traces of war. Emotional impressions are fully confirmed by the now known figures and facts. Only 799 bombs fell within the city, which, as you can easily see, is only 4.8% of their total number. Where did all the rest fall, that is, 15,000 bombs? To port facilities and ships in the harbor? Maybe. But the loss (in total) of three boats and two cargo ships casts doubt on this as well...

The Germans bombed differently. Significantly smaller (in comparison with the Soviet raids on Helsinki) forces and with an immeasurably greater result. Above, we have already mentioned the terrible raid on August 23, 1942, when half of Stalingrad was destroyed in one day and tens of thousands of its inhabitants were killed. In June 1943, the Germans decided to take advantage of the relative calm at the front (there was still a month left before the Battle of Kursk) and launch a series of massive attacks on the industrial centers of the Volga region. (177, 178) The only plane

suitable for solving such a problem, remained a veteran of the Spanish war, the twin-engine Heinkel He-111. At the airfields of the Oryol and Kursk regions, the Luftwaffe command concentrated 11 bomber groups from two Air Fleets, that is, almost all available Heinkels.

The first and largest (according to various authors, from 128 to 168 bombers took part in it) raid took place on June 4th. The object of the strike was the Gorky Automobile Plant (the main manufacturer of T-70 light tanks at that time). The shop of the main conveyor was completely destroyed, the water intake was destroyed, the factory thermal power plant was damaged. In the following days (more precisely, nights), from June 5 to June 21, six more raids on Gorky were made, about 500 sorties in total (that is, on average, about a hundred bombers were involved). 50 buildings, 8 electrical substations, 5900 units of technological equipment were destroyed at the automobile plant. Five months of emergency repair and restoration work, in which 35 thousand people were involved, was required so that on October 28 a report on the restoration of the plant could be sent to Stalin. Two raids (109 aircraft on the night of June 9-10, 88 on the night of June 21) were made on Yaroslavl. A total of 937 high-explosive bombs with a total weight of 155 tons and 742 incendiary bombs were dropped. The object of the strike was the largest tire plant in the USSR. As a result, 6 out of 7 buildings of the plant were destroyed, warehouses of finished products and stocks of Lend-Lease rubber burned down. It took three months of emergency work to restore the plant. On June 12, the first air strike was

carried out on an oil refinery and an oil depot in the Saratov region. On the night of June 13, 14, 15, 19, 20, 22, groups of several dozen aircraft continued to bomb the burning tanks. As a result, from 60 to 70 thousand tons of oil products were destroyed. Is it a lot? This amount of gasoline and diesel fuel for six Soviet tank armies (and exactly that many were by the end of the war) should have been enough for a march of 3000 km. From Saratov to Paris ... On June 23, for forty minutes, the Germans bombed the Saratov aircraft plant No. 292 - the main manufacturer of the Yak-1 fighters (hereinafter - the Yak-3). The people's commissar of the aviation industry A. Shakhurin, in his post-war memoirs, describes the consequences of this raid as follows:

"The water supply was disabled by the first bombs, and there was nothing to extinguish the fire that had arisen in many places ... The impression was that there was no more plant. The burnt walls of the buildings and machine tools remained, many of which were out of order ... The People's Commissariat reported its proposals -

restore the plant. There were other opinions - to evacuate the workers to other plants ... ” (98)

In the end, it was decided to restore the plant on the existing site; as a result of the titanic efforts of builders, engineers and workers, by October the plant reached its production capacity in May. In total, 420 sorties of German bombers were made to Saratov, while five aircraft were reliably shot down. A little over one percent. 11 Heinkels were shot down over Gorky, which accounted for less than 2% of the total number of sorties.

For half a century, Soviet history books kept deathly silence about the June 1943 raids; the memory of them remained only in popular rumor. At the beginning of the 21st century, historians started talking about this tragic episode of the war. The unanimous opinion was expressed: "weak air defense." A completely inadequate outfit of forces and means, which did not allow us to adequately repel the raids of the Luftwaffe bombers. What is good about the 21st century in Russia - in addition to bare epithets ("weak", "completely insufficient"), you can also read the numbers. For example, the following: ***“The Gorky Air Defense Corps District and the 142nd NAD consisted of 47 fighters (of which 41 were directly on the cover of the city), 433 medium-caliber anti-aircraft guns and 82 small ones; there were 13 SON-2 gun-guided radar stations and two Pegmatit-type radars ... the sky of the Saratov Volga region was covered by 41 fighters, including 23 night lights, 192 medium-caliber and 72 small-caliber artillery guns, 90 DShK heavy machine guns. Their actions were provided by 4 gun-guided radar stations.*** (178) After reading this,

everyone can flip back a few pages of our book and re-read the paragraph about the composition of the air defense forces and means of the Ploiesti region. There is something to think about...

Final chapter

Dear reader, our story has come to an end. Having traveled a long and sometimes tedious way, we have come to a result that is so simple, and most importantly, predictable, that I, frankly, feel a little bewildered - was it necessary to spend so many words? The reasons for the defeat

of the Soviet Air Force in the summer of 1941 turned out to be exactly the same as the reasons for the defeat of the Red Army as a whole. The armed forces of the USSR were part of a seemingly indestructible, but seriously ill society inside, aviation was only a part - albeit a very specific one - of the Armed Forces created as an instrument of an aggressive totalitarian regime. The tinsel of slogans, posters, peppy songs and reports of unprecedented victories in the socialist competition flew off under the blows of a military thunderstorm - and the truth was exposed. A very ugly truth that far from all the Soviet people, as one person, were ready to defend such a country and such a regime ... The tragedy of the 41st was prepared for a long time by our Best Friend of effective managers, and only even greater cruelty, depravity and stupidity of the Nazi regime, the gigantic size and resources of the country, as well as assistance from the mighty forces of the democratic West, made it possible, at the cost of enormous bloodshed, to regain the lost and broken months, overpower the enemy and end the war in Berlin. As for the purely aviation-

technical problems and conclusions, they can be formulated as follows:

1. The main element of the "aircraft-pilot" system

is the pilot. This is true even today, in the era of on-board computers and homing missiles. This conclusion becomes all the more true in relation to combat aviation of the 1940s. 2. The combat training of a pilot is an inseparable alloy of

skill and desire. The ability to fly, shoot, bomb, find, evade - and the willingness to sacrifice one's life for the victory of one's squadron, one's army, one's country. In the Stalinist army, it was equally bad with both the first and second components of combat training. As a result, the combat effectiveness of the Armed Forces (in particular, aviation) turned out to be surprisingly low: the lack of proper motivation was exacerbated by the low level of flight, rifle, and tactical training. 3. For successful combat use in the "aircraft-pilot" system, an aircraft with performance characteristics comparable

to the performance characteristics of enemy aircraft is required. The limits of the range of this

"comparability" is very broad. A small (10–15%) advantage (or, on the contrary, a lag) in one or another parameter is not significant and can almost always be compensated by choosing the optimal tactics. 4. The effectiveness and efficiency of the entire Air Force

system is even less dependent on the performance characteristics of aircraft and is even more determined by the TACTICS of the combat use of individual elements of the system, their interaction with each other and with ground forces; the work of the communication and warning service, ground technical services, the development of the airfield base and, above all, the presence of competent leadership.

Almost all of the above cannot be bought, stolen, copied. All this must be created within your country, your army. The possibility of creating all this is determined to a decisive extent by what is usually called the "human factor".

5. Stalin (by this name we will call the top military-political leadership of the USSR for brevity) at least from the mid-30s concentrated all his efforts (and all the resources of the richest country in the world) on comprehensive preparations for a future war. In particular, the goal was to create the most powerful military aviation in the world. 6. The sub-

problem of creating material and technical means of warfare was solved best and most successfully. In particular, an aviation industry was created that was capable of producing combat aircraft in quantities that were not available to any European country; Numerous research and design organizations have been established. The success was due to an unprecedented concentration of material and financial resources, as well as the amazing myopia (if not venality) of Western politicians, who allowed Stalin to turn the stolen financial resources into the latest military technologies. 7. As a result, by the beginning of 1939, Stalin had a huge (many times more than any

of the participants in the world war that began that year) at his disposal, the number of aircraft that, in their performance characteristics, were at least as good as the best combat aircraft in the world. 8. The issues of creating the system itself, called "military aviation", were solved much

worse. And there were many reasons for that. The systemic approach, in principle, is difficult to reconcile with the Marxist-Leninist worldview, based on the absolutization of individual particulars.

The general level of education and culture of our collective "Stalin" was unacceptably low. Finally, the personnel potential was also completely different: if the presence (and sometimes leadership) of "socially alien", non-party specialists was still allowed in the research institutes and design bureaus,

real engineers and scientists of the old Russian school, then by the end of the 1930s there were no "outsiders" in the leadership of the army, aviation, military industry. Stalin's "nominees" were, at best, capable of very intensive, but extremely inefficient work. At worst, they were illiterate crooks, intriguers and upstarts who in a normal society would not be trusted to lead a brigade of scavengers.

9. Thus, by the beginning of World War II, a completely paradoxical situation had developed, almost indescribable in normal human language: a lot of planes, a lot of pilots, a lot of airfields, a lot of aircraft factories, a lot of aviation schools and flight schools. At the same time, there are not enough gas stations, hoses and funnels, batteries and autostarters, radio stations and telephone wires everywhere. There are the latest high-speed anti-aircraft guns, but there are no shells for them, there are unique systems for pressurizing fuel tanks with inert gas, but there is no nitrogen at the airfields, there is a huge aircraft fleet, but there are no tractors for clearing snow from airfields, there is a huge network of flight schools, but the cadets are busy with stepping and unloading of wagons, there is the largest oil production in Europe, but there is no high-octane aviation gasoline ... In short, everything is there - and the real combat capability of military aviation is

negligible. 10. On the eve of the war, Stalin extended to an even greater extent the specific "Stalinist methods" of leadership, i.e., administrative pressure, mass repressions, and the inculcation of an atmosphere of fear, sycophancy and bloody intrigues, to aviation, the aviation industry and science. As a result, the established scientific teams were destroyed, the best specialists were physically destroyed (or permanently removed from creative work), and the natural process of updating the aircraft fleet of the Soviet Air Force on the eve of the war was slowed down for 2-3 years.

11. A few weeks and days before the start of the war with Germany, Stalin exterminated a large and probably the best part of the command staff of the Air Force. The reasons why it was precisely in the spring of 1941 that the leadership of military aviation became the next victim of another wave of mass terror could not be clarified. The consequences of this massacre - in terms of further demoralization of the Armed Forces - are obvious and do not require

explanation. 12. As of June 22, 1941, even that part (about half) of Soviet aviation that was deployed on the territory of the western military districts many times exceeded enemy aviation in all quantitative parameters (the number of aircraft, crews, squadrons, home airfields). The technical condition and performance characteristics of combat aircraft were satisfactory, generally meeting the requirements of the war.

In any case, the material part of the Soviet air regiments was not inferior to the aviation of the Western allies, in battles with which the Luftwaffe suffered heavy losses (France), or heavy losses and defeat (England). 13. The myth of the

“surprise attack”, cultivated in Soviet historiography for many years, is fictional from beginning to end. Not to mention the fact that the combat charters of aviation in force at that time provided for the necessary system of measures to exclude the possibility of a “surprise strike” on home airfields, all western districts, all military aviation formations received the necessary orders before the start of hostilities to bring units into full combat readiness.

14. In the very first days of the war, the inability of Soviet aviation to effectively conduct an air war became obvious. A huge aircraft fleet was used with the "efficiency of a steam locomotive" - a small number of sorties, lack of coordination of actions and communication with ground forces, unsatisfactory work of the logistics system, impotence and lack of will of headquarters. In those sectors of the front (Belarus, the Baltic states), where the enemy ground forces delivered the main blow, a panic "relocation" to the rear began, which in fact was a mass desertion.

15. The inaction (in some cases, flight) of Soviet aviation allowed the enemy to bomb the battle formations of the ground forces of the Red Army almost without hindrance, which became one of the reasons for the disorderly panic retreat, which, in turn, even more pushed the aviation commanders to make a decision on an urgent "relocation". Thus, a system with "positive feedback" was formed at lightning speed, the action of which ultimately led to the fact that a significant part of the aircraft fleet of the Air Force of the Western, Northwestern (to a lesser extent Southwestern) fronts was abandoned at airfields. 16. In conditions of approximate numerical equality with the Soviet Air Force, German

aviation received a decisive advantage due to the higher training and morale of the flight personnel, due to the proven tactics of combat use and interaction with ground forces, due to the flawless operation of the communications and control system. Only the continuous build-up of forces as a result of the transfer of aviation units of the internal and Far Eastern districts, only the continuous formation of new air regiments allowed the command of the Soviet Air Force to strike back, to provide minimal air cover for ground troops.

17. The "blitzkrieg" in the air was thwarted for the same reason that the "blitzkrieg" on the ground did not take place: the Germans did not have time to "grind" more and more enemy units, did not have time to make up for the growing losses. On the other hand, as discipline, order and controllability were restored in the Soviet Air Force, as combat experience was gained by the flight and command staff, the actions of Soviet aviation became more effective. Probably, by the autumn of 1942, a delicate balance of forces had developed in the air. However, the resources that the Soviet Union and its aviation spent to maintain this balance were many times higher than the costs and losses of the enemy. Right up to May 1945, the Soviet Air Force remained a huge, but ineffective mechanism of war.

Applications

Appendix No. 1

COMPOSITION OF THE GROUPING AND NUMBER OF COMBAT AIRCRAFT OF THE SOVIET AVIATION AS OF JUNE 1-22, 1941

AIR FORCE OF THE LENINGRAD VO (NORTHERN FRONT) AND AIR FORCE OF THE NORTHERN FLEET

	SAD Fighters ,	Bombers
1st Murmansk	145th IAP, 147th IAP 109/0	10th BAP, 137th BAP 85/0
Air Force S. Fleet, 72nd SAP	21 / 0	11/0
55th GARDEN, Petrozavodsk	153rd IAP 111/45	72nd BAP 49/4
Vyborg IAP 269 /	7th IAP, 158th IAP, 159th 5th IAP, — 138	
3rd Gorelovo	IAD, 19th IAP, 44th IAP 137/2 -	
39th Pushkin	IAD, 154th IAP, 155th IAP, 156th IAP 111/0	—
54th Levashovo	IAD, 26th IAP, 157th IAP 90/0 -	
41st Gatchina	dietary supplement, —	201st BAP, 202nd BAP, 205BAP 48
2nd GARDEN, Staraya	—	2nd BAP, 44th BAP, 58th BAP 174 / 17 367 /
Russa TOTAL:	848 / 185	21

AIR FORCE OF THE RED SIGNED BALTIC FLEET

Fighters

Bombers

61st IABr	5th IAP, 13th IAP	—
8th BABr - 10th SABr		1st MTAP, 57th BAP
71st IAP Det. squadrons 15,		73rd BAP
41, 43, 44, 58, 71 and 81 TOTAL: 174/0		
325 / 46		

<i>AIR FORCE OF THE PRIBALTIAN OVO (NORTH-WESTERN FRONT)</i>

	Fighters	Bombers
4 GARDEN, Tallinn	38th IAP 63 / 0	35th BAP, 50th BAP, 53rd BAP 134/5
6th GARDEN, Riga	21st IAP, 148th IAP 31st BAP,	40th BAP 115 / 0 135 / 0
7th Mitava	GARDEN, 10th IAP 59/23	9th BAP, 46th BAP 116 / 0
8th GARDEN Kaunas	15th IAP, 31st IAP 230/116	—
57th Vilnius	SAD, 42nd IAP, 49th IAP 168 54th	BAP 75/7/0
TOTAL:	655 / 139	440/12

<i>AIR FORCE OF THE WESTERN OVO (WESTERN FRONT)</i>
--

Fighters Bombers	11th SAD, 122nd IAP, 127th IAP 146 /
16th BAP 62 / 37 Lida 0 9th SAD, 41st IAP, 124th IAP, 126th 13th BAP 59 / 8	
Bialystok IAP, 129th IAP 370 / 237 10th GARDEN, 33rd IAP, 123rd IAP 125 / 39th BAP 53 / 9 Kobrin 20 12th	
BAD, Vitebsk	
—	6th BAP, 43rd BAP, 128th BAP, 209th BAP 131/0
43rd NAD, 160th IAP, 161st IAP, 162nd Balbasovo_	
IAP, 163rd IAP 243/0	
13th dietary supplement -	24th BAP, 97th BAP, 121st BAP,

125th BAP, 130th BAP 225/0

AIR FORCE OF THE Kyiv OVO (SOUTH-WESTERN FRONT)
--

Fighters Bombers 14th IAD, 17th IAP, 46th IAP, 89th Lutsk

IAP 171 / 0 15th SAD, 23rd IAP, 28th IAP, 164th Lvov__

IAP 170 / 98

—

63rd SAD, 20th IAP, 91st IAP, 165th Sambor IAP

—

178 / 63 64th IAD, 12th IAP,

149th IAP, 166th Stanislav IAP, 247th IAP 275 / 57

—

16th GARDEN, 87th IAP, 92nd IAP 132 / 4

86th BAP 46 /

19th BAD,

9 Ternopil 62nd BAD, Ovruch 17th GARDEN, Proskurov

Bila Tserkva

—

52nd BAP, 94th BAP, 226th BAP,

44th IM,

227th BAP 213/15 48th BAP,

88th IAP, 248th

—

224th BAP, 225th BAP 66/34

IAP, 249th

IAP 136 / 0

Uman

—

33rd BAP, 136th BAP, 138th BAP
142/10

—

36th IAD, 2nd IAP. 43rd IAP 112/0 - Klev

18th DBAD, Kyiv__

90th DBAP, 93rd DBAP 119/0

TOTAL: 1174 / 247

586 / 68

AIR FORCE OF ODESSA IN (SOUTHERN FRONT)
--

Fighters

20

Chisinau

SAD, 4th IAP, 55th IAP 247 / 122

Bombers of the 45th

BAP, 211th BAP 78/5

21 GARDEN, Odessa 67th IAP, 69th IAP, 168th IAP 5th BAP 61/25
201/5

45 GARDEN, 131st IAP 72/5 Kirovograd 132nd BAP, 232nd BAP
81/5

otd. 146th IAP 77 / 57
TOTAL: 597 / 189 220 / 35

BLACK SEA FLEET AIR FORCE

Fighters Bombers 8th IAP, 9th IAP, 32nd IAP 227 / 19

62nd IABr —

63rd BABR - 2nd MTAP. 40th BAP 108/15

Dep. 87th, 94th, 96th. UAE 85 / 0 70th, 78th obae 25 / 0
squadrons

TOTAL: 312/19 133/15

CONNECTIONS OF LONG-TERM BOMBER AVIATION ON THE WESTERN THEATER

1st 40th AD (53rd DBAP, 200th DBAP, 94 "DB-3 / DB-3f", 68, 7th
TBAP) "TB-3" AK, 51st AD (7th DBAP, 203rd
Novgorod DBAP, 112 "DB-3 / DB-3f", 204th DBAP) 52nd AD (98th DBAP,
212th DBAP,
132 "DB-3 / DB-3f", 52 3rd TBAP) "TB-3" AK, 42nd AD (96th DBAP,
3rd 207th DBAP, 69 "DB-3 / DB-3f", 41 1st TBAP)
Smolensk "TB-3" 35th AD (100th DBAP. 219th 125 "DB-3 / DB-3f" DBAP, 223rd
DBAP) 48th AD (51st DBAP, 220th DBAP, 127
"DB-3 / DB-3f" 221st DBAP) 4th AK, AD (8th DBAP, 11th
2nd AK, Kursk DBAP, 21st 196 "DB-3 /
DB-3f" Zaporozhye 22nd DBAP)

50th AD (81st DBAP, 231st DBAP, 149 "DB-3 / DB-3f" 299th DBAP)

TOTAL:

1004 "DB-3 / DB-3f", 161
"TB-3"

Total: -

4795 fighters, including 1082 MiG-3 and Yak-1; - 3454 bombers

(not counting the TB-3), including 205 Pe-2s - a total of 8249 combat aircraft

Note: - the total number of aircraft is

indicated,

including temporarily

faulty;

- combat-ready aircraft accounted for an average of 84-87% of the total; - through the fraction, the number of aircraft of "new types" included in the total number (MiG-3 and Yak-1 fighters, Pe-2 bombers) is indicated;

- the tables do not include seven "assault" air regiments, which were armed with about 320 obsolete I-15bis biplane fighters; - about twenty emerging air regiments and aircraft are not taken into account,

were in their arsenal;

- reconnaissance units are not included in the aviation of the Navy
and the seaplanes they were armed with;

- the composition of the Air Force of the Southwestern Front is indicated according to the report of the commander
Front Air Force, other sources give a larger number of aircraft;

- in the composition of the 18th DBAD (Air Force of the South-Western Front) the 14th
TBAP, which was armed with 38 "TB-3" and 9 "TB-7";

- the total number of fighters does not include obsolete I-15bis biplanes; - after the
outbreak of

hostilities, some regiments were transferred to
composition of other air divisions.

Appendix No. 2

NUMBER OF CREWS IN THE AIR FORCE OF THE WESTERN DISTRICTS AND DBA

	Fighters	Bombers	Total	Air Force of the Leningrad
Military District 512 / 799	520 / 289	Air Force of the Baltic OBO 384 /		1135
418 678 / 549	Air Force of the Western OBO Air	379 / 381		787
the Kiev OBO	Force of	526 / 456		1289
	919 / 895	617 / 449		1547
Air Force of the Odessa	392 / 401	181 / 192		699
Military District DBA (1st, 3rd, 2nd, 4th		771 / 928		928
AK) - TOTAL:	2885 / 3062	2994 / 2695		6385

Note: - the data

reflected in this table are taken from the collection "Air Force of the Great Patriotic War in Figures";

- the first number was

obtained by summing the number of crews by air regiments as of June 1, 1941, while not taking into account the crews of attack and reconnaissance air regiments, as well as the crews of TBAPs armed with obsolete TB-3s;

- the number of combat-ready crews in the Air Force of the Kyiv OVO is indicated according to the report of the commander of the Air Force of the South-Western Front, while the crews of the 18th DBAD are excluded from the total;

- the number of "combat-ready crews" indicated in the summary table "Combat and strength of the Air Force of the western border military districts at the beginning of the Great Patriotic War on June 22, 1941" is indicated through a fraction; - the column "Total" shows the number of combat-ready crews indicated in the summary

table "Characteristics of the Air Force of the Western Border Military Districts (as of June 1, 1941)", not counting the crews that were "retrained or commissioned upon arrival from schools."

Appendix 3

COMPOSITION OF THE GROUPING AND THE NUMBER OF LUFTWAFFE COMBAT AIRCRAFT ON THE EASTERN FRONT JUNE 22, 1941

PART OF THE FORCES OF THE 5TH AIR FLEET, POLAR

Fighters Bombers 87"	Dive-bombers "Ju	"Me-110"
1/JG 77 12 Bf IV(St)/LG 1 36	"Ju 5./KG 30 12 "Ju-88" 109 87"	ZG 76 6 "Me 110"

1st AIR FLEET (1st AIR CORPS), EAST PRUSSIA

Fighters I, II,	Bombers
III/JG 54 129 Bf-109F I, II, HI/KG 76 90 Ju-88	
4., 5./JG 53 35 Bf-109F I, II, III/KG 77 91 Ju-88	Total:
164/131 II, III/KG 1 59 Ju-88	
	KGr 806 30 "Ju-88"
	Total: 270/210

2nd Air Force (8th and 2nd Aviation Corps), POLAND

Fighters	Bombers I, 8., 9./
I, III/JG53 79 "Bf-109F"	KG2 66 "Do-17"
II/JG 52 39 "Bf-109F"	III/KG 3 38 "Do-17"
II, III/JG 27 84 "Bf-109 E"	I, II/KG 3 81 "Ju-88"
II (Sch)/LG 2 38 "Bf-109 E"	I, II, III/KG 53 86 "He-111"
I, II, III, IV/JG 51 160 "Bf-109 F"	Total: 271 / 185
Total: 400 / 346	

Dive bombers "Ju-87" Multi-purpose "Me-110"

II, III/StG 1 81	I, II/ZG 26 78
I, III/StG 2 77	II, III/SKG 210 83
I, II, III/StG 77 115	Stab/StG 1, 2, 77
18 Total: 273 / 184	Total: 179 / 138

4TH AIR FLEET: 5TH AIR CORPS, SOUTHERN POLAND

Fighters

I, II, III/JG 3 109 Bf-109 F I, II, III/KG 51 92 Ju-88
Total: 109/89

Bombers

I, II/KG 54 71 "Ju-88"
I, II, III/KG 55 84 "He-111"
Total: 247 / 226

4TH AIR CORPS, ROMANIA

Fighters Bombers

II, III/JG 77 76 "Bf-109 E, F" I, II, III/KG 27 87 "He-111"
I(J)/LG 2 40 "Bf-109E" II/KG 4 24 "He-111"

Stab, III/JG 52 47 "Bf-109 F" Total: 111 / 81
Total: 163 / 105

Total: 2253/1761

Fighters - 848/683 (633 Bf-109 F + 215 Bf-109 E). Bombers -
911 / 714 (526 "Ju-88" + 281 "He-11" + 104 "Do 17"). Dive-bombers

("Ju-87") - 309/220. Multi-purpose
("Me-110") - 185/144.

all aircraft of the 5th Air Fleet are listed as combat-ready.

2. Aircraft of the headquarters level are taken into account in the total number respective squadrons.

3. In cases where the fighter group was equipped with Bf-109 aircraft of two modifications (E and F), all fighters were counted as "Bf-109F"; this led to some overestimation of the total number of "Bf 109 F" in comparison with other sources.

4. The headquarters units of the bomber squadrons also included several Me-110s (they are not included in this table).

Appendix 4

NUMBER OF COMBAT AIRCRAFT IN THE AIR FORCE OF THE FIVE WESTERN DISTRICT (FRONTS), JUNE-JULY 1941

	of all types, including exterminate.
June 22, 1941	6755 / 5894 4226 / 3664
June 24, 1941	4074 / 3895 2266 / 2167
June 30, 1941	3343 / 2880 1759 / 1534 2434 /
July 10, 1941	1824 1532 / 1194

Luftwaffe to the East. front, 30.06.2040 / ??? 791/??? Note: 1. The table
does not include

DBA aircraft, Air Force fleets, reconnaissance and
front-line aviation spotters.

2. The first digit - total aircraft, through a fraction - including
combat-ready.

3. In the line "June 24", the number of aircraft of the Air Force of the Southern Front (not
indicated by the compilers of the collection "Soviet Aviation in the Second World War in Figures") is
taken equal to the number on June 30, which led to some underestimation of the total figures. 4.
The number of Luftwaffe aircraft is

indicated as the arithmetic difference between the original number (including defective aircraft)
on June 22 and irretrievable losses "from enemy action and from unknown causes" in the period
June 22 to 30; the result obtained is overestimated, since non-combat losses (accidents and
catastrophes) are not taken into account

Annex 5

NUMBER OF FIGHTER PLANES IN THE AIR FORCE OF THE SOUTH-WESTERN FRONT, JUNE-JULY 1941

	22.06	11.07	17.07
14th IAD (17, 46, 89th IAP) 15th	171	26	22
SAD (23, 28, 164th IAP) 16th	170 / 98	20 / 11	28 / 13
SAD (87, 92nd IAP) 63rd	132 /	38/218	
SAD (20, 91, 165 -th IAP) 64th	4 178 / 63	52 / 22	22 / 6
IAD (12, 149, 166, 247th IAP) 275/57 ??? 44th NAD (88,			42/7
248, 249th IAP) 136 ??? 36th IAD (2, 43, 254, 255th IAP)			60
112 TOTAL:		115	87
	1174 / 222	251 / 35	279 / 26

Note: 1.

Compiled according to the "WWII Air Force in numbers" [see. 23] and the Report of the front air force commander of August 21, 1941 [see. 148]. some figures have been clarified by other sources, in some cases the final figures have been arithmetically averaged.

2. The first figure is the total number of aircraft (including temporarily out of order), through a fraction - including "new types" ("MiG-3", "Yak-1"). 3. Aircraft "I-15" / "I-15bis" are not taken into account.

DECLARED NUMBER OF ENEMY AIRCRAFT SHOT BY SOUTH-WESTERN FRONT AIR FORCE FIGHTERS

	22-30 July	1-6 July	7-12 Total
14th IAD (17, 46, 89th IAP), Lutsk 29 10 15th SAD (23,		1	40
28, 164th IAP), Lviv 65 8 16th SAD (87, 92nd IAP),		0	73
Ternopil 20 2 63rd SAD (20th, 91st, 165th IAP), Sambir		2	24
0 0 Air Force of the 12th Army (Stanislav) 0		41	41
	0	74	74

36th IAD (2, 43, 254, 255th IAP), Kyiv	0	17	17
TOTAL: 114 20		135	269

Note: 1. The

table was compiled according to the "Summary of destroyed enemy aircraft", signed by the commander of the Yu-3 Air Force f. Lieutenant General F.A. Astakhov [see item 161].

2. By the method of elimination, it can be established that the compilers of the Summary attributed to the "Air Force of the 12th Army" the 12th, 149th, 166th, 247th IAPs from the 64th IAD (headquarters in Stanislav, now Ivano-Frankivsk) and 88, 248, 249th IAP from the emerging 44th IAD (headquarters in

Uman). 3. Judging by the documents of July 1941, the 20th and 91st IAP were transferred during the course of hostilities from the 63rd SAD to the 17th SAD of front-line subordination (headquarters in Proskurov).

4. Bomber regiments of the Air Force of the South-West. announced 113 enemy aircraft shot down (this is not reflected in this table). 5. The number of aircraft shot down by anti-aircraft artillery is not reflected in this table.

Appendix 6

IRREGULAR BATTLE LOSSES OF

LUFTWAFFE AIRCRAFT IN JUNE-JULY 1941

PART OF THE FORCES OF THE 5TH AIR FLEET IN THE POLAR

	Bombardier Fighters. 87"		"Ju	them "Me-110"	From of Total for earth
Initial number	12	12	36	6	66
Losses June 22 -		—	---		
Losses from 22 to June	30	0	2	13	0
Losses 1 to 31 July	5	4	11	- 20	1
TOTAL:	5	6	12	- 23	1

Note: losses of Bf-109 and Me-110 fighters are shown as a single sum.

1st AIR FLEET

	Bombardier Fighters. 87"		"Ju	Me-110	Total	From them on earth
Initial number	164	270	0	0	434	
Losses on June 22	1	2	—	—	3	0
Losses from 22 to June	30	5	36	—	— 41	0

Losses from 1 to 31 16	39	— — 55	3
July			
TOTAL:	21	75	— — 96 3

2ND AIR FLEET

	Bombardier	Fighters. 87"	"Ju	Me 110	total	Of them on earth
Initial number	400	271	273	179	1123	
Losses on June 22 15		3	2	5	25	?
Losses from 22 to 30 34 June		13	19	21	87	6
Losses from 1 to 31 62 July		43	39	39	183	8
TOTAL:	96	56	58	60	270	14

4TH AIR FLEET

	Bombardier	Fighters. 87"	"Ju	"Me-110"	Total	From them for earth
Initial number	272	358	0	?	630	
Losses on June 22 3		thirty	- 1		34	0
Losses from 22 to 30 18 / 13 June		66 / 59 - 1			85	0
Losses from 1 to 31 49 / 27 July		63 / 46 — —			72 173	112 /
TOTAL:	67 / 40	129 / 105 - 1			197 / 1145	

Note: in the line "Losses from June 22 to June 30" through a fraction are shown irretrievable losses of aircraft of the 5th Air Corps.

TOTAL LOSSES FOR ALL FLEETS

	Bombardier	Fighters. 87"	"Ju	them "Me-110"	From of Total for earth
Initial number	848	911	309	185	2253
Losses on 22 June 19		35	2	6	62?
Losses from 22 to 30 57 June		115	19	22	213 6
Losses 1 to 31 132 July		149	50	39	370 13
TOTAL:	189	264	69	61	583 19
%% of original 22% numerical		29%	22%	33%	26% 0.8%

Note: - the
tables take into account irretrievable (60% damage) losses of combat
aircraft "from the impact of the enemy and for unknown reasons";
- according to other sources, in June 1941, irretrievably lost on
airfields 13 German aircraft.

The classification of losses adopted by the Luftwaffe:
up to 24% - small and medium damage that can be
eliminated by ground services;
25-39% - major repairs are required in parts; 40-44% - replacement
of individual units or systems is required; 45-59% - numerous damages
requiring the replacement of many aircraft units; 60-80% - not recoverable, some
units may

be used as spare parts;

81-99% - completely destroyed, the wreckage fell on the territory controlled by the
Germans; 100% - went
missing, fell on enemy territory or at sea.

Annex 7

THE NUMBER OF ENEMY PLANES SHOWN BY THE COMMAND OF THE SOVIET AIR FORCE AND REAL LOSSES OF THE LUFTWAFFE

No.	Fact stated. k = 143		
1 Air Force Zap. f. 22.06	25	5.7	81 5.2 183 2.9
2 Air Force Zap. f. 22–30.06	422	72	2.3 111
3 VVS Zap. f. 01–31.07 4	538	4.2	14
VVS Yu-3 f. 22–30.06 5 Air	164	14.6	1 —
Force South-West f. 01.07–10.08	470		
6 Destroyed on the ground, Air Force Zap. f. 22 06–17.07 7	205		
Destroyed on the ground, Air Force South-West f. 01.07–	172		
10.08 8 Air Forces of all fronts, 22.06–	752	326	2.3
9 10.07 Destroyed air forces of all fronts on the ground, 22.06–10.07	348	19	18.3
10 destroyed all fronts on Earth, 11–18.10 500 11 combat losses of the		10	50.0
enemy from 22.06 to 12/31/1941 4200 12 combat losses of the enemy		1363	3.1
from 1.01 to 12/31/1942 11550 13 combat loss of enemy from 1.01 to		3600	3.2
12/31/1944, 1944 Note: - as "real losses of the Luftwaffe" in	17500	2900	6.0

this table,

irretrievable (60% damage) losses of combat aircraft from "enemy impact and for unknown reasons" are taken into account; damaged aircraft are not taken into account in any way; - losses of German allied aircraft (Finnish and Romanian Air Forces), as well as losses of tactical

aviation aircraft (ambulance, communications, short-range reconnaissance and spotters) are not taken into account;

- in those cases (p. 12 and 13), when the sources indicate only the total number of irretrievable losses, the losses "from the influence of the enemy" were obtained by calculation, as 65% of the total number of irretrievable losses;

- p. 5 does not take into account the Yu-3 f. declared by the headquarters of the Air Force. enemy aircraft destroyed on the ground; as the actual number of casualties

the losses of the 4th Air Fleet of the Luftwaffe for July are taken, thus, the number of actual losses is overestimated by taking into account the aircraft of the 4th Air Corps shot down in the zone of the Southern Front; - in page 8, the number of Luftwaffe

aircraft actually shot down is calculated

as the sum of the losses in June and one-third of the losses in

July; - p. 10 shows the actual losses of the Luftwaffe for the whole of October; - in pages

11, 12, 13, the number of declared victories is taken from the statistical collection "Soviet Aviation in the Second World War in Figures"; in many open printed publications of the Soviet era, significantly larger numbers were mentioned; - p. 13 indicates the maximum number of actual

irrecoverable combat losses of the Luftwaffe known to the author; other sources give figures of the order of 2600 aircraft (fighters, bombers, attack aircraft and reconnaissance aircraft).

German losses in armament are no less heavy: in more than 3 months of the war, the Germans lost more than 21,000 tanks, 13,000 guns, 9,000 aircraft shot down by our aircraft in air battles and destroyed at airfields, not counting aircraft lost during takeoff and landing. These are the facts.

A.S. SHCHERBAKOV

Head of the Soviet Information Bureau

The 4th of October

In this regard, it would not be superfluous to recall that in only five months of hostilities on the Eastern Front, the Nazi army lost up to 19,000 guns, more than 15,000 tanks and about 13,000 aircraft. This does not include the huge losses in equipment and weapons of the Nazi army, which it suffered from November 16 to December 10 on the outskirts of Moscow.

December 16

Annex 8

NUMBER OF AIRCRAFT BOMBERS AND CREWS IN THE AIR FORCE OF THE SOUTH-WESTERN FRONT, JUNE - JULY 1941

	22.06	17.07
52nd BAP "SB", "Pe-2" 94th	36 / 36 / 59	3 / 1 / 22
BAP "SB"	63 / 59 / 46	12 / 5 / 31
226th BAP "Su-2"	55 / 32 / 31	12 / 4 / 55
227th BAP "Su-2"	59 / 42 / 63	23/10/51
90th DBAP "DB-3f"	60 / 53 / 54	23 / 6 / 37
93rd DBAP "DB-3f"	58 / 55 / 55	15 / 6 / 20
33rd BAL "SB", "Ar-2", "Pe-2" 60 / 53 / 63 136th		15 / 10 / 36
BAP "SB", "Yak-2/4" 53 / 50 / 36 138th BAP "SB"	7 / 4 / 12	
	27 / 27 / 37	3 / 1 / 17
48th BAP "SB", "Pe-2"	42 / 42 / 56	4/1/33
TOTAL:	513 / 449 / 500	117 / 48 / 314
%%	100 / 100 / 100	23 / 11 / 63

Note: 1.

Number of aircraft / including serviceable ones / number of crews. 2.

There is no information about the 86th BAP and the 14th TBAP in the report of the Air Force Headquarters of the Southwestern Front dated 07/17/41, respectively, these regiments are

not taken into account in the table. 3. The emerging 224, 225, 242, 243, 244, 245th bomber regiments.

Annex 9

COMBAT LOSSES OF FRONT-LINE AVIATION BY WAR YEARS

1941 1942 1943 1944 1945 Total

Bombers 4029 1462 940 751 591 7773 Attack aircraft 1676 3515

3344 1691 10759 Fighters 523 Other types Total:

4416 3888 4642 3330 1191 17467

255 1233 403 423 96 2410

9233 8259 9500 7848 3569 38409

1941 1942 1943 1944 1945 Total

Shot down in air battles 2698 1718 3905 2902 966 12189 Shot down by anti-aircraft guns 1146 541 2234 2810 1748 8479

Did not return from mission 3500 5796 3122 1926 817 15161 Destroyed at the airfield. 1889 204 239 210 38 Total: 9233 8259 9500 2580 7848 3569 38409

Note: 1. The

tables are compiled according to the data collection "Air Forces of the Great Patriotic War in Numbers" (23). 2. The losses of the Air Force fleets and

air defense fighter aircraft are not taken into account. 3. The compilers of the collection included more than half of the DBA losses in the losses of the bombers; this can be judged from the fact that the compilers determined the total losses of front-line aviation bombers as 6086 aircraft, and DBA bombers - 2776 aircraft.

Appendix 10

COMBAT LOSSES OF FIGHTERS OF FRONT-LINE AVIATION BY WAR YEARS

	1941	1942	1943	1944	1945	Total
"I-16"	1207	255	61	—	—	1523
"I-153"	973	177	40	—	—	1190
MiG-3	1214	218	—	—	—	1432
"LaGT-3"	349	1101	307	95	-	1852
Yak-1/Yak-7/Yak-9/Yak-3	326	1571	2296	1870	689	6752
La-5/La-7	—	73	—	1460	861	312
						2706
Hurricane	1	290	49	—	1	341
Tomahawk / Kittyhawk - 111				96	17	224
Aircobra						
- 49 Total:				305	486	190
						1030
	4416	3888	4642	3330	1191	17467

Note: 1. The tables are compiled according to the data collection "Air Forces of the Great Patriotic War in Numbers" (23). 2. Losses of air defense fighter aircraft and air force fleets are not taken into account. 3. Cumulative losses are greater than the sum of losses by line due to aircraft of other types.

Sources

1. **M.I. Meltyukhov**. Stalin's missed chance. M.: Veche, 2000. 2. Aircraft building in the USSR. 1917–1945 Book. 1–2. M.: 1994. 3. 1941 - lessons and conclusions. M.: Military Publishing House, 1992. 4. Collection of combat documents of the Great Patriotic War, vol. No. 36. M.: Military Publishing House, 1958.
5. Russian Archive, v. 16, Great Patriotic War, Stavka VGK. Documents and materials, 1941. M.: TERRA, 1996.
6. Russia - XX century. Documentation. 1941 Book 2. M.: International Democracy Foundation, 1998.
7. Collection of combat documents of the Great Patriotic War, no. No. 31. M.: Military Publishing House, 1957. 8. Website "Mechanized Corps of the Red Army" www.mechcorps.rkka.ru
9. Collection of military documents of the Great Patriotic War, no. No. 34. M.: Military Publishing House, 1958.
10. Collection of combat documents of the Great Patriotic War, no. No. 35. M.: Military Publishing House, 1958.
11. Collection of combat documents of the Great Patriotic War, no. No. 38. M.: Military Publishing House, 1959. 12. **F. Halder**. War diary. T.Z. Moscow: Military Publishing House, 1971. 13. **G. Göt**. tank operations. Smolensk: Rusich, 1999. 14. Russian archive. The Great Patriotic War. On the eve of the war. Materials of the meeting of the top leadership of the Red Army on December 23–31, 1940. M.: TERRA, 1993.
15. Website "Corner of the sky. Virtual Aviation Encyclopedia, www.airwar.ru 16. Russia — XX century. Documentation. 1941 Book 1. M.: International Fund "Democracy", 1996. 17. **M. Nikolsky**. Fighters Yakovlev. "Aviation and Cosmonautics", No. 5–6, 1999. 18. **V. Katkov, A. Firsov**. Fighter Messerschmitt Bf-109. "Aviation and Cosmonautics", No. 5–6, 1999. 19. **V. Schwabedissen**. Stalin's falcons. Analysis of the action of Soviet aviation in 1941–1945. Minsk: Harvest, 2001. 20. **D. Sobolev**. Aircraft History 1919–1945 M.: ROSSPEN, 1997. 21. **A. Stepanov**. Pyrrhic victory for the Luftwaffe in the West. Aviation History, No. 3, 2000.

22. **D. Richards, H. Saunders.** British Air Force in World War II

war. Moscow: Military Publishing House, 1963.

23. Headquarters of the Air Force. Soviet Aviation in the Great Patriotic War 1941–1945 in numbers. The team of authors V.G. Nikiforova, 1962.

24. **A. Price.** Luftwaffe Data Book. Greenhill books, 1997. 25. **G.**

Kornyukhin. Soviet fighters in the Great Patriotic war (an article in the book "Aces of the Allies"). Smolensk: Rusich, 2000.

26 **V. Shavrov.** History of aircraft designs in the USSR 1938–1950 M.: Mashinostroenie, 1978.

27. **M.N. Kozhevnikov.** The command and headquarters of the Air Force of the Soviet Army in Great Patriotic War 1941–1945 Moscow: Nauka, 1985.

28. **D. Devine.** Nine Days of Dunkirk. Moscow: Military Publishing House, 1965. 29. **G. Feuchter.** The history of the air war in its past, present and future. M.: Military Publishing House, 1956.

30. **I. Timokhovich.** Operational Art of the Soviet Air Force in the Great Patriotic War. Moscow: Military Publishing House, 1976. 31. **G.**

Zimin. Tactics in Combat Examples: Fighter Aviation Division. M.: Military Publishing, 1982.

32. **M. Maslov,** Fighter I-16. M... Exprint NV, 1997. 33. V. **Shumikhin.**

Soviet military aviation 1917–1941. Moscow: Military Publishing House, 1986. 34. **L.**

Sandalov. Fighting troops of the 4th Army. M.: Military Publishing House, 1961. 35. The classification has been removed. Statistical research. Ed. G.F. Krivosheev. M.: Military Publishing, 1993.

36. **A. Medved, D. Khazanov.** Long-range bomber "Er-2". "Aviamaster", No. 2, 1999.

37 **U. Balke.** Der Luftkrieg im Europa. Kublenz, 1989.

38. **O. Groehler.** Geschichte des Luftkrieges 1910 bis 1980. Berlin, 1985. 39. **A.**

Novikov. In the sky of Leningrad. M.: Nauka, 1970. 40. **A.**

Isaev. From Dubno to Rostov. M.: ACT, M.: Transitbook, 2004. 41. L. **Fedorov.**

Aviation in the Battle of Moscow. M.: Nauka, 1971. 42. Proceedings of the Central Committee of the CPSU. No. 1,

1990. 43. **M. Speke.** Aces of the Luftwaffe. Smolensk: Rusich, 1999. 44. Bug on fire. Digest of articles. Minsk: Belarus, 1977. 45.

M. Speak. Aces of allies. Smolensk: Rusich, 2000. 46. **Liddell**

Hart B.G. The Second World War. M.: ACT, 1999. 47. Results of the

Second World War. Collection of articles, trans. from German, Moscow: Foreign Literature, 1957.

48. **V. Emelianenko**. In the military air harsh. Moscow: Young Guard, 1972. 49. **F. Polynin**. Battle routes. M.: Military Publishing, 1972. 50. **N. Skripko**. For targets near and far. Moscow: Military Publishing House, 1981. 51. **I. Inozemtsev**. Under the wing - Leningrad. Moscow: Military Publishing House, 1978. 52. **V. Alekseenko**. Soviet Air Force on the Eve and During the Great Patriotic War. "Aviation and Cosmonautics - Yesterday, Today, Tomorrow", No. 2/3, 2000. 53. **I. Timokhovich**. In the sky of war Moscow: Military Publishing House, 1986. 54. **A. Rytov**. Knights of the Fifth Ocean. Moscow: Military Publishing House, 1968. 55. **G. Zakharov**. I am a fighter. Moscow: Military Publishing House, 1985. 56. **D. Khazanov**. Invasion. The beginning of the air war in the Soviet German front. "Aviation and Time", No. 3/4/5, 1996. 57. **E. Podrepny**. The verdict was signed by Yakovlev. About the fate of the aircraft I-180. "Wings of the Motherland", No. 11, 1996. 58. **I. Gulyas**. Victory of Soviet pilots on the first day of the war. Aerohobby, No. 1, 1994. 59. **F. Archipenko**. Notes of a fighter pilot. Kharkov: Delta, 1999. 60. **G. Litvin**. Broken wings of the Luftwaffe. "Aviation and Cosmonautics - Yesterday, Today, Tomorrow", No. 7/8, 1998. 61. The First Days of the War in Documents Military History Journal, No. 5, 6, 7, 8, 9 \ 1989. 62. **V. Dimych**. Cheerful hunting in the East of Europe. "Aviation and Cosmonautics, No. 1, 1999. 63. **D Khazanov**. Werner Melders. Aviamaster, No. 4/5, 1997. 64. **P. Tsupko**. Dive-bombers. M.: Politizdat, 1987. 65. **G. Guderian**. Memoirs of a soldier. Rostov-on-Don: Phoenix, 1998. 66. **M. Timin**. On the edge of the main blow. Causes of the defeat of the Air Force ZapVO. Ulyanovsk, 2001. 67. **O. Souvenirov**. Tragedy of the Red Army 1938-1941. M.: TERRA, 1998. 68. The hidden truth of the war. Collection of documents, ed. P.N. Knyashevsky. Moscow: Russian book, 1992. 69. Documents of foreign policy. T. 23, book 1. M.: Historical documentary department of the Ministry of Foreign Affairs of Russia, 1995. 70. Russian Air Force website, www.airforce.ru 71. **D. Dyakov**, **T. Bushueva**. The Nazi sword was forged in the USSR. Moscow: Soviet Russia, 1992. 72. **A. Shirokorad**. Aviation guns. "Technique and weapons", special issue, No. 11/12, 1996. 73. **R. Jackson**. Red falcons. Kharkov: Osnova, 1996.

74. Website "The Russian Battlefield", www.battlefield.ru 75. _____

Website "Workers 'and Peasants' Red Army", www.rkka.ru 76. **D.** _____

Khazanov. 88th against the USSR. "AS", No. 1, 1993. 77. **M.**

Pavlovsky. Royal Emil. AviaMaster, No. 3, 1997. 78. **M. Zefirov.** Aces of the Luftwaffe. Bomber aircraft. M.: ACT, 2004.

79. **E. Lee.** Air power. M.: Foreign Literature, 1958. 80. Aircraft Design Bureau named after S.V. Ilyushin. Ed. G.V. Novozhilov.

M.: Mashinostroenie, 1990.

81. **L. Bulakh.** Royal "spaniels" in the Winter War. "Aviamaster", M., 1996.

82. **N.**

Gordyukov, D. Khazanov. Close bomber Su-2. Moscow: T-M Publishing House, 2000. 83. **S. Lyubarsky.**

Some operational-tactical conclusions from the experience of the war in Spain. M.: State Military Publishing House of the People's Commissariat of Defense of the USSR, 1939.

84. **G. Klotz.** Lessons from the Spanish Civil War. Per. from French M.:

Military Publishing House of NKO USSR, 1938.

85. **N. Gapeyonok.** Roads of Victory. The combat path of the 81st Guards Bomber Aviation Regiment. Shchelkovo, MUP "Editorial office of the magazine" Shchelkovo ""

2002. 86. **A. Yakovlev.** The purpose of life. M.:

Politizdat, 1973. 87. Documents of foreign policy. T. 23, book 2. M.: Historical

documentary department of the Ministry of Foreign Affairs of Russia, 1995.

88. **A. Shevyakov.** Soviet-German economic relations in prewar years. Sociological Research, No. 5, 1995.

89. **R. Toliver, T. Constable.** Erich Hartmann is a blond knight of the Reich. Yekaterinburg,

1998. 90. **M. Zefirov.** Aces of the Luftwaffe 1933–1945. Day fighters. M.: ACT, 2004.

91. **V. Lukashin.** Against a common enemy. Moscow:

Military Publishing House, 1976. 92. **A. Stepanov.** Air war over Khalkhin Gol.

Website airforce.ru 93. **V. Kotelnikov, O. Leiko.** Dive bomber "Pe-2". M: MAI, 1993. 94.

M. Maslov, A. Medved, D. Khazanov. Fighter "MiG". M.: RUSAVIA, 2003. 95. Documents and

materials on the eve of the Second World War. v.2, MFA

THE USSR. Moscow: Politizdat, 1981.

96. **K. Tippleskirch.** History of the Second World War. M.: Military Publishing House, 1956. 97. Website www.virtualpilots.fi
98. **A. Shakhurin.** Wings of Victory. M.: Politizdat, 1990.
99. **Yu. Google, V. Ivanov.** Fatal I-180. Aerohobby, No. 1, 1994. 100. **Yu. Google, V. Ivanov.** I-185: speed, maneuver, fire... tragedy. Aerohobby, No. 1, 1994. 101. **L. Naumov.** Struggle in the leadership of the NKVD. 1936–1938 M.: 2003.
102. **V. Belokon.** House of cards of the history of our aviation. "Engineer", No. 12, 1990.
103. **V. Ivanov.** Aircraft N.N. Polikarpov. M.: RUSAVIA, 2003. 104. **G. Maksimovich, I. Chkalov.** Prepared disaster? "Miracles and adventures", No. 6, 1992.
105. **M. Mukhin, A. Stepanov.** Soviet aircraft industry on the eve of the Second World War. M.: Yauza, 2006. 106. Journal "News of the Central Committee of the CPSU", No. 9, 1990. 107. **M. Mukhin.** The evolution of the control system of the Soviet defense industry. "National History", No. 3, 2000. 108. "Military History Journal", No. 3, 1998. 109. **S. Alekseev.** Birth of KB. "World of Aviation", No. 2, 1995. 110. **V. Ivanov.** MiG-1: Polikarpov's car? "Wings of the Motherland", No. 2, 1995. 111. **A. Medved, D. Khazanov.** Paper tiger of the Red Army Air Force. "Aviation and Time", No. 4, 1996. 112. Main Military Council of the Red Army, March 13, 1938 - June 20, 1941. Documents and materials. M.: ROSSPEN, 2004.
113. **N. Yakubovich.** Aircraft S.A. Lavochkin. M.: RUSAVIA, 2002. 114. **V. Perov, O. Rastrenin.** Unknown Ar-2. "Aviation and Cosmonautics Yesterday, Today, Tomorrow". No. 7, 2003. 115. **E. Arseniev.** Aircraft OKB im. A.I. Mikoyan. "Aviation and Cosmonautics Yesterday, Today, Tomorrow", No. 7, 2000. 116. **V. Boyarsky.** Partisans and the army. Minsk: Harvest, Moscow: ACT, 2001.
117. **W. Murray.** Luftwaffe. Strategy for Defeat. Translation provided by E. Kovalev.
118. Newspaper "Red Star", February 19, 2002 A. Bondarenko. Aviation continues to lag behind ...
119. Materials of the investigation and trial of General D.G. Pavlov. Unknown Russia, XX century. Collection of documents, book 2. M.: Historical heritage, 1992.

120. N. Lavrentiev, R. Demidov, L. Kucherenko, Yu. Khramov. Aviation of the Navy in the Great Patriotic War. Moscow: Military Publishing House, 1983. 121. **P. Bobylev**. Rehearsal for disaster. Military Historical Journal, No. 6/7/8, 1993.
122. **V. Ratkin**. Combat score TB-3. "World of Aviation", No. 2, 1997. 123. **B. Veselovsky**. Hidden biography. M.: Military Publishing House, 1996. 124. **A. Proskurin**. The fighting of the 127th IAP in the Grodno region. "Military History Journal", No. 7, 1971. 125. Website "I remember" (www.iremember.ru) 126. "JG-53 on the Eastern Front", website www.airwar.ru 127. **M. Solonin**. June 22, or When did the Great Patriotic War begin? Moscow: Yauza/EKSMO, 2005. 128.
- Krasnaya Zvezda newspaper, June 20, 2001. A Bondarenko. Chronicle dive bomber.
129. **N. Bogdanov**. In the sky - Guards Gatchina. L.: Lenizdat, 1980. 130. **S. Ivanov**. Army headquarters, front-line headquarters. M.: Military Publishing House, 1990. 131. **L. Zablotsky, R. Larintsev**. Luftwaffe losses in Vostochny front. Website www.airwar.ru 132. **N. Ilyin, V. Rulin**. Guards in the air. M.: DOSAAF, 1973. 133. **A. Mardanov**. Protecting the Russian North. Website www.airwar.ru 134. **L. Sandalov**. Experienced. Moscow: Military Publishing House, 1966 135. **V. Ivanov**. Air battle trophies 1941–1946. M.: KM Strategy, 2001.
136. **V. Perov, O. Rastrenin**. Battlefield aircraft. Eastern front. "Aviation and Cosmonautics", No. 11, 2002.
137. **Yu. Rybin**. Equation with one unknown. Aviamaster, No. 5, 1999. 138. **V. Perov, O. Rastrenin**. Attack aircraft "IL-2". "Aviation and cosmonautics yesterday, today, tomorrow", yy 5/6, 2001.
139. **V. Zvyagintsev**. Tribunal for heroes. M.: OLMA-Press, 2005, Terra 2008. 140.
- N. Cherushev**. Hit on your own. Red Army 1938–1941 M.: Veche. 2003. 141.
- A. Stepanov**. The development of Soviet aviation on the eve of the Great Patriotic war. SPb., 2006.
142. **M. Solonin**. June 25: stupidity or aggression? M.: Yauza-EKSMO, 2008. 143.
- P. Khokhlov**. over three seas. Leningrad: Lenizdat, 1988.
144. Guarding the sky of the capital. A brief outline of the history of the Moscow Air Defense District. M., 1968.

145 **Christer Bergström**. Barbarossa: The Air Battle. July-December 1941.

Ian Allan Publishing, 2007. 146.

Reports of monthly losses of squadrons according to the documents of the Office of the Chief Quartermaster General of the Luftwaffe were provided by Matti Salonen (Finland).

147. **A. Zabolotsky, R. Larintsev**. When attacking airfields, destroy the materiel in several passes ... An article in the collection "1941 Forgotten Victories of the Red Army." Moscow: Yauza-EKSMO, 2009.

148. Report of the Commander of the Air Force of the Southwestern Front, General Lieutenant Astakhov dated August 21, 1941 in SBD No. 36 (see paragraph 4), pp. 109–122.

149. **Shlomo Aloni**. operation focus. The Israeli Preemptive Strike Of June 5, 1967. IsraDecal Publications, 2008.

150. Official website of the Israeli Air Force (www.iaf.org.il) 151. **M.**

Meltyukhov. The initial period of the war in the documents of military counterintelligence In the collection "The Tragedy of 1941. Causes of the disaster. M.: Yauza - EKSMO, 2008. 152. **M. Solonin**. June 22: "Day M".

M.: Yauza - EKSMO, 2007. 153. TsAMO, f. 217, op. 1221, d. 60, l. 5. 154.

TsAMO, f. 20013, op. 1, d. 7, l. 20. 155. Chronicle

of the Great Patriotic War of the Soviet Union at

the Northern Theater from 22.06.41 to 31.12.41... Ed. Rear Admiral M.M. Dolinina, 1944, editor of the 1999 edition A.V. Platonov, quoted from: www.eismeerfront.com 156. **D. Khazanov**. 1941. War in the air. Bitter lessons. M.: Yauza - EKSMO, 2006. 157. TsVMA, f. 216, d. 12487, l. 442, cited from: Collection

of orders and directives of the People's Commissar of the Navy, posted on the Great Patriotic War

website at <http://town.ural.ru/ship/docs/docsnk41.php3> 158. A selection of materials was used "On June 22, 1941, the Navy enters

under

By

into battle" from A. Rozin's website.

159. Report on the combat and numerical strength of the Air Force units of the Southwestern Front as of July 11, 1941. Collection of Combat Documents (SBD) No. 38, pp. 8–9. 160. Report on the combat and

numerical strength of the Air Force units of the Southwestern Front as of July 17, 1941. Collection of Combat Documents (SBD) No. 38, p. 99.

161. Summary of destroyed enemy aircraft by parts of the Yugo Air Force Western Front for the period 22.6–12.7.41, SBD No. 36, pp. 123–126.

162. **A. Isaev.** AntiSolonin-1. Posted on the Internet site "Actual History" at <http://actualhistory.ru/polemics-isaev-antisolonin1> 163. ~~Russian Archive, Great Patriotic War, vol. 13.~~

Orders of the People's Commissar of Defense of the USSR. M.: TERRA, 1994.

164. Memoirs of a fighter pilot L.I. Toropova.

Posted on the website at <http://www.iremember.ru/content/view/931/78/lang.ru/>

"I

remember"

By

165. **Fritz Hahn.** Waffen und Geheimwaffen des deutschen Heeres. 1933–1945.

166. **K. Becker.** War diaries of the Luftwaffe. Chronicle of the fighting of the German Air Force. M.: Tsentropoligraf, 2008. 167. **D.**

Khazanov. Battle for the sky. 1941. From the Dnieper to the Gulf of Finland. M.: Yauza-EKSMO,

2007. 168. Report on the combat operations of the Air Force of the North-Western Front (TsAMO, f. 221, op. 374, d. 15), provided by the reserve colonel S.B. Buldygin. 169. **I.**

Moroz. Paths of fathers. M.: DOSAAF, 1980. 170. **V.**

Zvyagintsev. Tribunal for Stalin's falcons. M.: TERRA, 2008. 171. TsAMO, f.

3422, op. 1, d. 6, l. 7. 172. Memoirs of a

fighter pilot S.F. Dolgushin, posted on the website at <http://www.iremember.ru/content/view/512/78/lang.ru/>

remember"

By

173. **D. Kienko.** Gone to the sky. Available at <http://www.airforce.ru/history/ww2/kienko/index.htm> 174. TsAMO,

f.35, op. 23227, d. 41, l.104–106; d.23, l. 95–98, cited in: Collection, see p. 23. 175. TsAMO, f. 35, op. 11333,

d. 23, l. 353. 176. **M. Zefirov.** Aces of World

War II. Allies of the Luftwaffe. Estonia, Latvia, Finland, M.: ACT, 2003. 177. **M.**

Zefirov, D. Degtev, N. Bazhenov. Swastika over

the Volga. Luftwaffe against Stalin's air defense. M.: ACT, 2007. 178. **A.**

Zabolotsky, R. Larintsev. Valkyries over the Volga.

Magazine

Aviamaster, No. 4/2006

179. **M. Morozov.** Ilyushin's torpedo bombers over the Black Sea. Magazine Aviation History, 1/2003. 180.

TsAMO, f. 35, op. 11333, d. 23, l. 349. 181.

TsAMO, f. 35, op. 11333, d. 23, l. 339. 182.

TsAMO, f. 35, op. 11333, d. 23, l. 342. 183.

TsAMO, f. 229, op. 181. d. 33, l. 19. 184.

TsAMO, f. 229, op. 181, d. 10, l. 8.

185. TsAMO, f. 35, op. 11333, d. 23, l. 336, 345.

186. TsAMO, f. 229, op. 181. d. 10, l. 12.

187. TsAMO, f. 229, op. 181, d. 33, l. 3, 9.